

1993 Annual Report

Vital Statistics of Massachusetts

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Massachusetts Department of Public Health
Public Document No. 1



The Commonwealth of Massachusetts

Executive Office of Health and Human Services

Department of Public Health

Registry of Vital Records and Statistics

470 Atlantic Avenue, Second Floor

Boston, MA 02110-2224

WILLIAM F. WELD
Governor

ARGEO PAUL CELLUCCI
Lieutenant Governor

GERALD WHITBURN
Secretary

DAID H. MULLIGAN
Commissioner

February 1996

To the Honorable Senate and
House of Representatives:

We have the honor to submit as required by Chapter 111, Section 2 of the General Laws, the one hundred fifty-second annual report on statistics of births, deaths, marriages and divorces in Massachusetts for calendar year 1993.

This is the thirtieth ANNUAL REPORT OF VITAL STATISTICS published by the Department of Public Health and is intended to assist in the development of policy and programmatic initiatives within the Department, as well as to provide State officials and agencies, and the general public, with valuable statistical information.

Sincerely,

A handwritten signature in cursive script, reading 'David H. Mulligan'.

David H. Mulligan
Commissioner

**ANNUAL REPORT
VITAL STATISTICS OF MASSACHUSETTS
PUBLIC DOCUMENT #1
1993**

**THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC HEALTH**

**WILLIAM F. WELD, GOVERNOR
GERALD WHITBURN, SECRETARY OF HEALTH AND HUMAN SERVICES
DAVID H. MULLIGAN, COMMISSIONER OF PUBLIC HEALTH**

**DANIEL J. FRIEDMAN, PH.D., ASSISTANT COMMISSIONER
BUREAU OF HEALTH STATISTICS, RESEARCH AND EVALUATION**

**ELAINE B. TRUDEAU, REGISTRAR
REGISTRY OF VITAL RECORDS AND STATISTICS**

**470 ATLANTIC AVENUE
BOSTON, MASSACHUSETTS 02210-2224**

FEBRUARY 1996

Publication of this document approved by Philmore Anderson III, State Purchasing Agent

ACKNOWLEDGEMENTS

This publication of the 1993 ANNUAL REPORT OF VITAL STATISTICS is the result of the combined efforts of all data providers, including the 351 city and town clerks, hospital personnel, physicians, funeral directors, probate courts, clinics, and Department of Public Health personnel. We gratefully acknowledge the assistance provided by all data providers, without whose efforts there would be no vital statistics.

Department of Public Health staff most significantly involved in the production of the 1993 ANNUAL REPORT OF VITAL STATISTICS include:

Bruce Cohen, Christine Payne, and Raymond Vezina, Bureau of Health Statistics, Research and Evaluation: assistance and technical data from Advance Data: Births 1993 and Advance Data: Deaths 1993;

Robert Danley, Bureau of Health Statistics, Research and Evaluation: population statistics;

Michael Healey, Division of Data Processing: data file management and vital events series printouts;

Duke Rhoden, Bureau of Health Statistics, Research and Evaluation: supervision of computer graphics and special table production, with programming by Howard H. Wong;

Dennis Sterzin, Graphic Design Center: graphic layout and assistance;

Karin Barrett, Data Quality Assurance Coordinator, and Charlene Zion, Information Officer, Registry of Vital Records and Statistics: coordination of the hospital query program for birth certificate data, specialized data programming, and assistance in developing specialized table production;

Phyllis Zeuli, Assistant Registrar for Statistics: supervision of data collection, coding and editing, with technical assistance from Maureen McKean (Statistics Unit supervisor) and Robert Coffin (Chief Nosologist).

The joint efforts of all the staff of the Registry of Vital Records and Statistics are necessary to produce the data contained in this publication. Special acknowledgement is made to the following Registry supervisors:

Alan Goldin, Director of Automation, who is responsible for the installation and supervision of the Automated Vital Statistics System (AVSS) and all computer-based systems in the Registry office;

James Orseno, Operations Unit Supervisor, who is responsible for all printing and mailing of forms;


Phyllis Rotman, Registration Unit Supervisor, who is responsible for coordination with cities and towns to produce the data in a timely fashion;

Lisa Varnerin, Records Unit Supervisor, who is responsible for maintaining all records and issuing certified copies.

The 1993 ANNUAL REPORT OF VITAL STATISTICS has been compiled and produced under the general supervision and direction of:

**Daniel J. Friedman, Ph.D., Assistant Commissioner
Bureau of Health Statistics, Research and Evaluation**

**Elaine B. Trudeau, Registrar of Vital Records and Statistics
Registry of Vital Records and Statistics**

A handwritten signature in cursive script, reading "Frances A. Vitagliano", is positioned above a solid horizontal line.

**Frances A. Vitagliano, Assistant Registrar
Editor**

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INTRODUCTION

The **ANNUAL REPORT OF VITAL STATISTICS** (Public Document No. 1) has been continuously published since 1842. This is the 30th edition produced by the Department of Public Health. This report, required under the provisions of Chapter 111, section 2, of the Massachusetts General Laws, tabulates data on Massachusetts births, fetal deaths, deaths, marriages, divorces, and population for calendar year 1993. Approximately 2,000 copies of the report are distributed to federal, state, and local governmental agencies, private and public health planners and researchers, students, and members of the general public. The report provides its users with an overview of the health status of the Massachusetts population.

Vital statistics data may be tabulated either in terms of resident data or occurrence data. Resident data include all events which occur to residents of the Commonwealth, wherever the events occur. Occurrence data include all those events which occur within the state, including those which occur to out-of-state residents. There is an interstate exchange of copies of birth, death, and fetal death records among the fifty states, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, and all Canadian provinces. These records are exchanged for statistical purposes only, for events which occur in states other than where the individual resides. This exchange allows each of the states and provinces to track the births and deaths of their residents. The majority of the data presented in this report for births and deaths is based on resident data. Marriage and divorce data, however, only reflect events which occurred within the Commonwealth.

REGISTRATION

The first government-operated system of vital events registration anywhere in the world began in the Commonwealth of Massachusetts in 1639 under colonial administration. Prior to that time, in countries such as England with a vital registration system, the responsibility for the registration of vital events had been placed on church officials. The Massachusetts system mandated the registration of vital events by the clerks of the communities. In 1842, the Massachusetts legislature established the first statewide coordination for the registration of these events by requiring that copies of the events registered in the local cities and town be sent to the Secretary of State. The first year of collection was designated for 1841. The collection of data and the production of the **ANNUAL REPORT OF VITAL STATISTICS** has continued since then. In 1976, the responsibility for the state coordination was transferred to the Department of Public Health. This was mandated in order to rejoin the statistical and registration functions which had been separated by the 1964 transfer of the statistical function to the Department of Public Health. With the exception of the administrative location of the State Registry, the actual mechanics of the system have changed remarkably little over the years.

With limited exceptions, most vital records in Massachusetts are open public records. The figure on the next page illustrates the registration process in Massachusetts. For open birth and death records, there is a triple registration process in Massachusetts. The event is first recorded in the city or town where the event occurred. The clerk of that community is then required to forward a certified copy of the record to both the community where the person resided at the time of the event and to the State Registry. Certified copies of the records may be issued from local or state records. If the record is a restricted record, such as those of out-of-wedlock births, the registration occurs only in the community where the event occurred and in the state office.

The Vital Records and Statistics Process

PROCESS

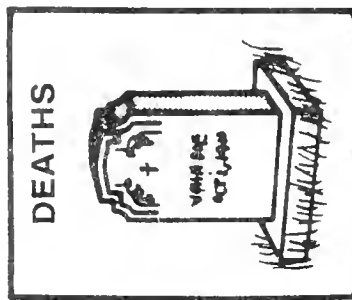
PRODUCT



BIRTHS



MARRIAGES



DEATHS

CITY AND TOWN CLERKS



STATE REGISTRY OF VITAL RECORDS AND STATISTICS



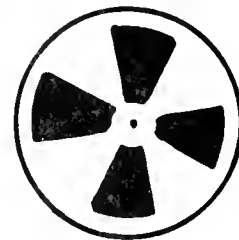
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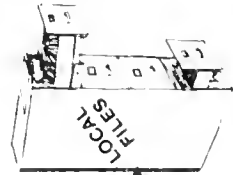
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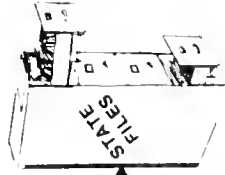
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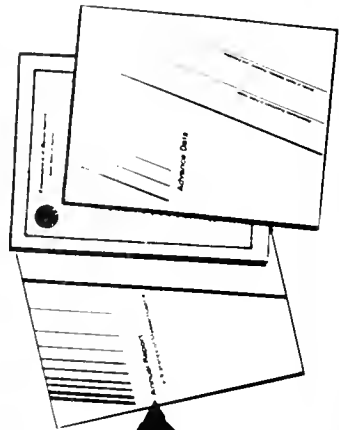
COMPUTER
STATISTICAL FILES



LOCAL
FILES



STATE
FILES



In addition to receiving a legal copy of each birth record from the city or town in which the birth occurred, the State Registry also receives a confidential copy of the birth record directly from the hospital or birthing center where the birth occurred. This copy includes confidential medical information in addition to the legal information. It is this copy of the record which is processed to produce the statistical information on births contained in this report.

Since 1986, the State Registry has developed a program of direct electronic transmission of birth records from hospitals. The system used in Massachusetts is called the Automated Vital Statistics System (AVSS). It was developed at the University of California, Santa Barbara. Almost 95 percent of all birth records are now received through this method. AVSS has contributed to reducing processing time at both the hospital and the State Registry, while the system's built-in edits increase the quality of the data.

Anyone wishing to be married in the Commonwealth may receive a marriage license from any of the 351 cities or towns in the state, regardless of residence or where the marriage is to take place in the Commonwealth. The community issuing the license is required to send an attested copy of the marriage record to the State Registry.

The process for creating death certificates is the most complex of all vital records. Complete and accurate death records are dependent upon the following individuals: 1.) Certifier, who not only initiates the death registration process but also determines the cause of death as well as the place, time, and date of death; 2.) Funeral Director, who plays the role of facilitator in the death registration process and adds the personal data concerning the decedent, which are supplied by an informant; 3.) Burial Agent, who both issues the permit that allows the chosen disposition to take place and serves as the initial acceptor of the death certificate for official registration; and, 4.) City or Town Clerk, who records the death certificate, issues certified copies of same and forwards a copy of the death record to the Registry of Vital Records and Statistics and other communities as required by law.

The Registry of Vital Records and Statistics receives directly from hospitals or physicians the fetal death reports for fetuses of either twenty or more weeks gestation or weighing at least 350 grams. There are no local filings of fetal death reports.

Abstracts of divorces granted are also sent directly to the State Registry from the Registers of Probate from each county probate court.

STATISTICAL PROCESSING AND TABULATING

The records received in the State Registry are carefully examined for legal errors and inconsistencies. As part of the computerization process, errors and inconsistencies are queried and corrected. A computerized hospital query program is part of the AVSS program. The Registry also has a data quality assurance program that includes on-site instruction for clerks and hospital personnel who have reporting difficulties, and training for all groups involved in the data collection process.

Annually, when registration is considered as complete as possible, statistics are aggregated for presentation in this report and in special studies, and for program monitoring and surveillance.

Anyone using statistical information for comparisons over time should be aware of inconsistencies and changing conventions for classification and coding. This is particularly important when using cause of death information. Codes used for classifying cause of death in this report are based on the Ninth Revision of the International Classification of Diseases, World Health Organization. Classification of variables such as race, nativity, and marital status may also differ over time.

It is hoped that this report will be useful to a wide range of health data users in the Commonwealth, as well as to educational planners, demographers, and historians. Questions concerning these data and requests for more detailed findings should be directed to:

Massachusetts Department of Public Health
Bureau of Health Statistics, Research and Evaluation
150 Tremont Street
Boston, Massachusetts 02111
(617) 727-DATA

VITAL EVENTS

1000

SECTION A

VITAL EVENTS

HIGHLIGHTS

BIRTHS

- In 1993, there were 84,627 births to Massachusetts residents.
- Births decreased by 2.9% from 1992 to 1993.
- The 1993 Massachusetts birth rate per 1,000 residents was 13.9, a decrease of 3.5% from the birth rate of 14.4 in 1992.
- Massachusetts' 1993 birth rate of 13.9 per 1,000 residents was below the 1993 U.S. rate of 15.7.
- The most births occurred in May (8.9%--7,499); the fewest occurred in both February and November (7.6%--6,414 births in each month).

DEATHS

- In 1993, 55,557 Massachusetts residents died.
- The number of deaths increased by 3.3% from 1992 to 1993.
- The 1993 Massachusetts death rate of 9.1 deaths per 1,000 residents was an increase from the 1992 Massachusetts death rate of 8.9 deaths per 1,000 residents. The 1993 U.S. death rate of 8.8 deaths per 1,000 residents increased from the 1992 U.S. death rate of 8.5 deaths per 1,000 residents. The 1993 age-adjusted death rate in Massachusetts (474.5 per 100,000 residents) was lower than the U.S. age-adjusted death rate (514.0).
- The most deaths occurred in March (10.2%--5,671); the fewest occurred in September (7.2%--4,013).

FETAL DEATHS

- There were 517 reportable fetal deaths to Massachusetts residents in 1993.
- Reportable fetal deaths increased by 6.8% from 1992 to 1993. The fetal death rate also increased from the 1992 rate of 5.5 per 1,000 live births and fetal deaths to a rate of 6.1 in 1993.

INFANT DEATHS

- In 1993, 523 infant deaths (less than 1 year of age) occurred to Massachusetts residents.
- The 1993 Massachusetts infant mortality rate of 6.2 deaths per 1,000 live births was a decrease from the 1992 infant mortality rate of 6.5 deaths per 1,000 live births.
- The black infant mortality rate decreased from 15.8 in 1992 to 12.5 in 1993.
- The Massachusetts 1993 infant mortality rate of 6.2 per 1,000 live births was 25.3% below the U.S. rate of 8.3.

MARRIAGES

- In 1993, there were 42,355 marriages in Massachusetts.
- The number of marriages in Massachusetts decreased by 2.0% from 1992 to 1993. Nationally, the number of marriages decreased by 1.2% during the same period.
- The 1993 Massachusetts rate of 7.0 marriages per 1,000 population was below the U.S. rate of 9.0.
- The most marriages occurred in October (13.6%--5,742); the fewest occurred in January (3.7%--1,562).

DIVORCES

- In 1993, 14,435 divorces were granted in Massachusetts.
- Divorces in Massachusetts decreased by 6.3% from 1992 to 1993.
- The 1993 Massachusetts divorce rate of 2.4 divorces per 1,000 population was below the U.S. rate of 4.6.
- The largest number of divorces was finalized in January (1,333--9.2%), and the fewest in October (1,096--7.6%).

NATURAL INCREASE

- The rate of natural increase in the Massachusetts resident population decreased to 4.8 per 1,000 residents in 1993 from a rate of 5.5 in 1992.
- The 1993 U.S. natural increase rate of 6.9 remains above that of Massachusetts.

The Vital Events section provides basic information on all vital events. In addition to the information highlighted above, this section contains summary birth and death data by city, town and county. More detailed information is contained in the sections on the individual events.

DEFINITIONS IMPORTANT FOR THIS SECTION INCLUDE:

FETAL DEATH

A fetal death is a death prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy; the death is indicated by the fact that after such separation the fetus does not breathe or show any other evidence of life, such as the beating of the heart, pulsation of the umbilical cord, or definite movement of the voluntary muscles.

Massachusetts law requires that fetal deaths of 20 or more weeks gestation or weighing at least 350 grams be reported; therefore, the fetal deaths referred to in this report are of that gestational age or weight.

MISER

The Massachusetts Institute for Social and Economic Research. This research institute, located at the University of Massachusetts in Amherst, produces the official population estimates and projections for the Commonwealth.

NATURAL INCREASE

The difference between the number of resident live births and the number of resident deaths.

OCCURRENCE

Occurrence data reflect where the event took place without regard to residence. In Massachusetts, place will be one of 351 cities or towns.

RESIDENCE

The usual place of residence as reported by the mother (for births) or the informant (for deaths). An infant's residence is considered that of the mother. While occurrence data include only events that occurred within Massachusetts, residence data for births and deaths include those which may or may not have occurred in Massachusetts.

CRUDE RATES OF VITAL EVENTS:

BIRTH RATE	$\frac{\text{No. of Resident Live Births}}{\text{Total Resident Population}} \times 1,000$
FETAL MORTALITY RATE	$\frac{\text{Number of Resident Fetal Deaths}}{\text{Resident Live Births} + \text{Resident Fetal Deaths}} \times 1,000$
INFANT MORTALITY RATE	$\frac{\text{No. of Resident Deaths} < 1 \text{ Year}}{\text{Resident Live Births}} \times 1,000$
NEONATAL MORTALITY RATE	$\frac{\text{No. of Resident Deaths} < 28 \text{ Days}}{\text{Resident Live Births}} \times 1,000$
DEATH RATE	$\frac{\text{No. of Resident Deaths}}{\text{Total Resident Population}} \times 1,000$
MARRIAGE RATE	$\frac{\text{No. of Occurrence Marriages}}{\text{Total Resident Population}} \times 1,000$
DIVORCE RATE	$\frac{\text{No. of Occurrence Divorces}}{\text{Total Resident Population}} \times 1,000$

Table A-1
SELECTED FACTS IN VITAL STATISTICS
MASSACHUSETTS: 1993

BIRTH

Ages of Mothers: 12-51

Ages of Fathers: 14-88

Sets of Twins: 1,184

Sets of Triplets: 66

Sets of Quadruplets: 2

Most Births Occurred on: July 7, 1993 (300 births)

Fewest Births Occurred on: November 21, 1993 (145 births)

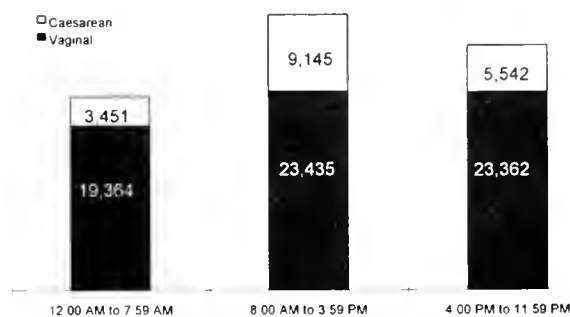
Highest # of Births at: Brigham and Women's Hospital (8,581 Births)

Lowest # of Births at: Holyoke Hospital (55 births)

Ten Most Popular Names for Babies

<i>Boy's Names</i>	<i>Number</i>	<i>Girls Names</i>	<i>Number</i>
Michael	1,562	Sarah	729
Matthew	1,217	Jessica	721
Christopher	1,110	Emily	720
Nicholas	1,063	Samantha	713
Ryan	853	Ashley	673
Daniel	845	Nicole	645
John	816	Amanda	600
Andrew	777	Elizabeth	489
Joseph	765	Stephanie	460
David	672	Jennifer	444

Number of Births Occurring at Specified Times of Day when Delivery Method is Known*



* Unknown delivery methods = 294
 Unknown times of birth = 34

DEATH

Male Decedents 100 Years and Older: 69

Female Decedents 100 years and Older: 435

Most Deaths Occurred on: March 7, 1993 (218 deaths)

Fewest Deaths Occurred on: July 16, 1993 (108 deaths)

Month Most Suicides Occurred: March (46)

Month Most Homicides Occurred: August (29)

Month Most Motor Vehicle Deaths Occurred: November (58)

Weekday Most Deaths Occurred: Friday (8,111 deaths)

Weekday Fewest Deaths Occurred: Sunday (7,731 deaths)

MARRIAGE

Ages of Brides: 13-89 years

Ages of Grooms: 16-100 years

Most Popular Month for Marriages: October (5,742 Marriages)

Least Popular Month for Marriages: January (1,562 Marriages)

Greatest Age Difference When Bride Older than Groom: 34 years

Greatest Age Difference When Groom Older than Bride: 49 years

DIVORCE

Length of Marriages Involved in Divorces: < 1 Year to 63 Years of Marriage

Most Common Length of Marriage Prior to Divorce: 5 years

Month Most Divorces Granted: January (1,333 Divorces)

Month Fewest Divorces Granted: October (1,096 Divorces)

Figure A-1

1993 Massachusetts Daily Vital Events

Each day Massachusetts residents had approximately:

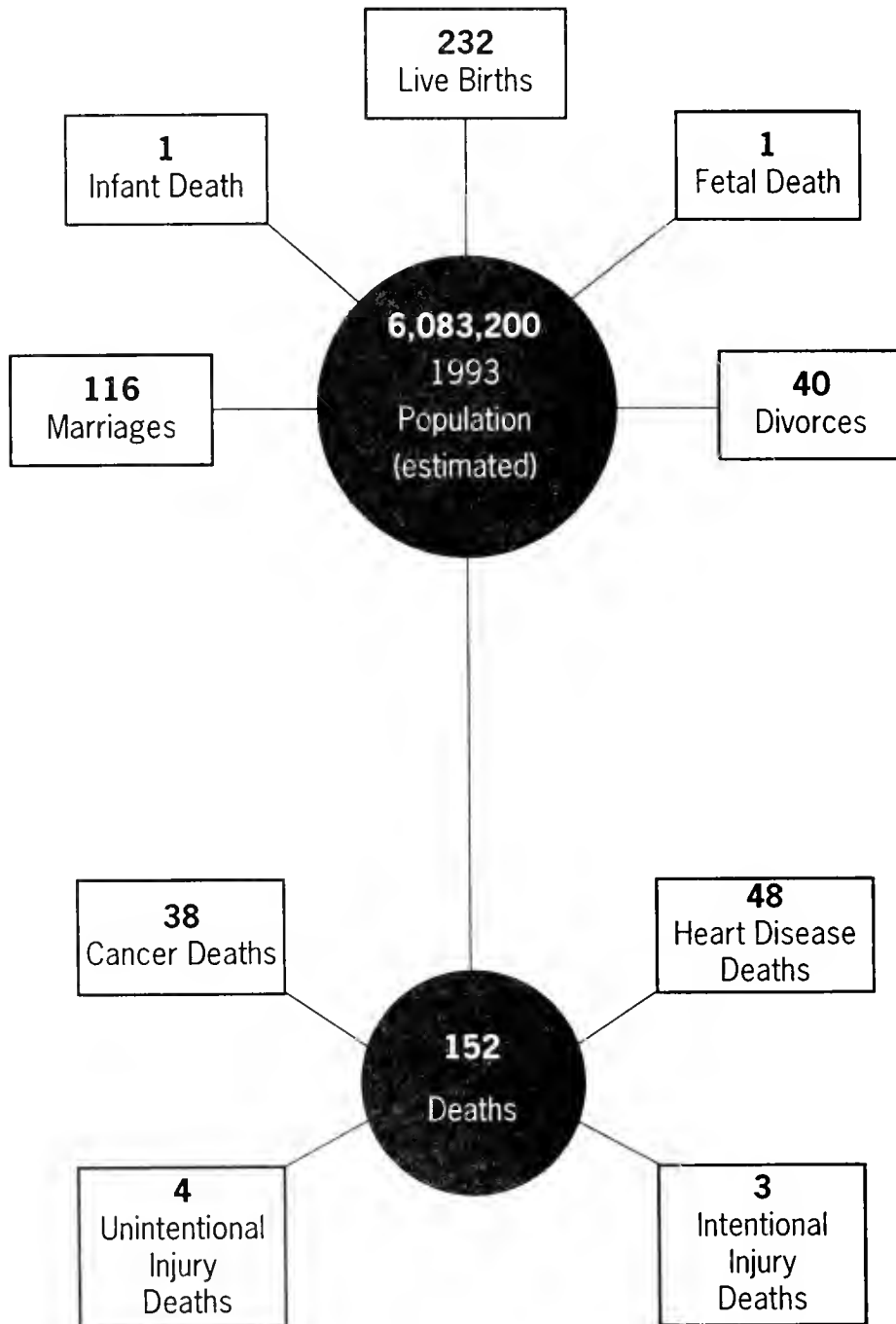


Table A-2. Number and Crude Rates of Vital Events

Massachusetts and United States: 1992-1993

Massachusetts					United States					
Vital Event	1993		1992		% of Rate Change	1993 ¹		1992 ²		% of Rate Change
	Number	Rate	Number	Rate		Number	Rate	Number	Rate	
Births	84,627	13.9	87,202	14.4	- 3.5	4,039,000	15.7	4,084,000	16.0	- 1.9
Fetal Deaths	517	6.1	484	5.5	+ 10.9	NA ³	NA	NA	NA	NA
Total Deaths	55,557	9.1	53,804	8.9	+ 2.2	2,268,000	8.8	2,175,613	8.5	+ 3.5
Infant Deaths	523	6.2	569	6.5	- 4.6	33,300	8.3	34,628	8.5	- 2.3
Neonatal Deaths	375	4.4	415	4.8	- 8.3	21,590	5.4	21,849	5.4	0.0
Marriages	42,355	7.0	43,228	7.1	- 1.4	2,334,000	9.0	2,362,000	9.3	- 3.2
Divorces	14,435	2.4	15,411	2.5	- 4.0	1,187,000	4.6	1,215,000	4.8	- 4.2
NOTES: Neonatal and infant deaths are included in total deaths; neonatal deaths are included in infant deaths; fetal deaths are excluded from total deaths. Figures for marriages and divorces reflect occurrence, not residence. The rates for live births, total deaths, marriages and divorces are per 1,000 population. Rates for infant and neonatal deaths are per 1,000 live births. Rates for fetal deaths are per 1,000 live births and fetal deaths.										

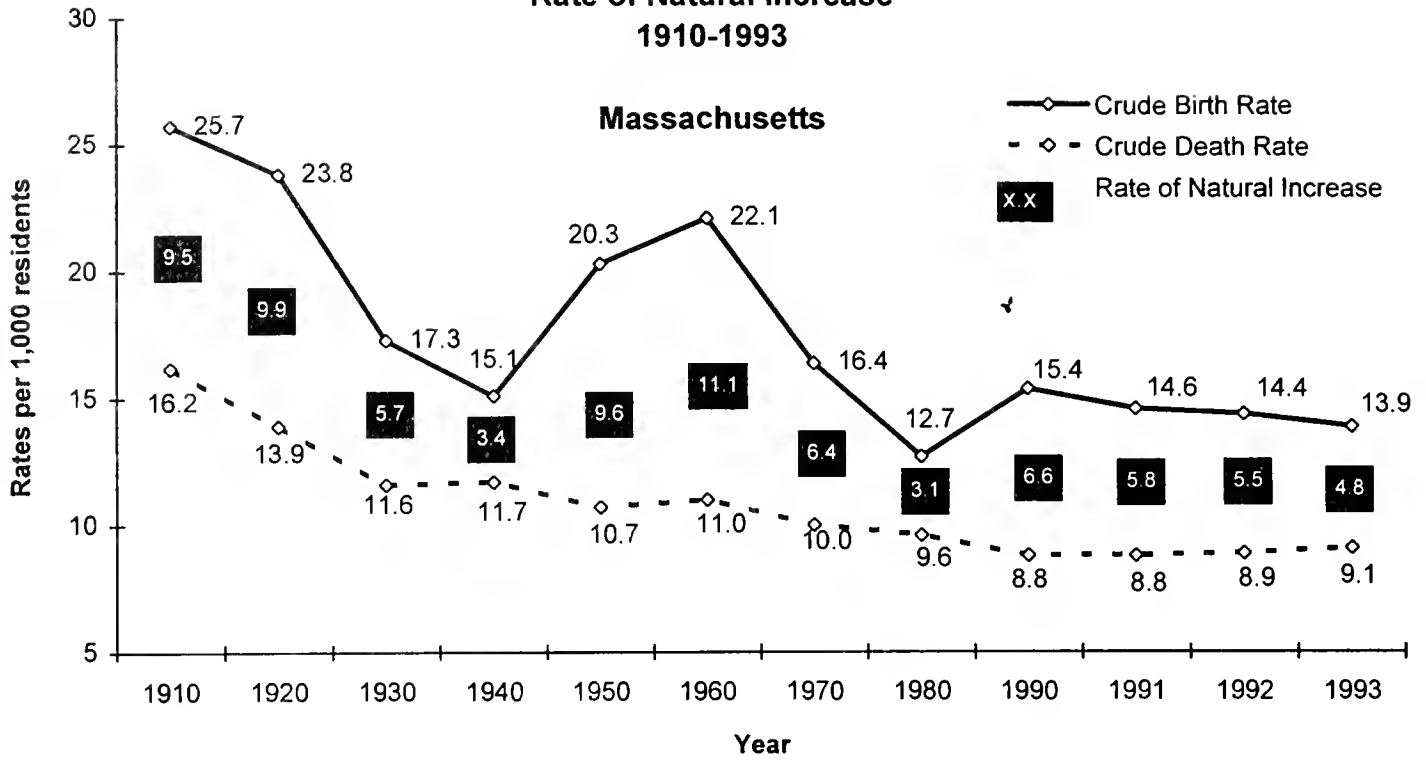
NOTES: Neonatal and infant deaths are included in total deaths; neonatal deaths are included in infant deaths; fetal deaths are excluded from total deaths. Figures for marriages and divorces reflect occurrence, not residence. The rates for live births, total deaths, marriages and divorces are per 1,000 population. Rates for infant and neonatal deaths are per 1,000 live births. Rates for fetal deaths are per 1,000 live births and fetal deaths.

¹ All United States numbers and rates for 1993 are provisional. ² United States numbers and rates for 1992 are provisional for Births, Marriages and Divorces; all others are final. ³ Not Available.

Figure A-2

Rate of Natural Increase
1910-1993

Massachusetts



United States

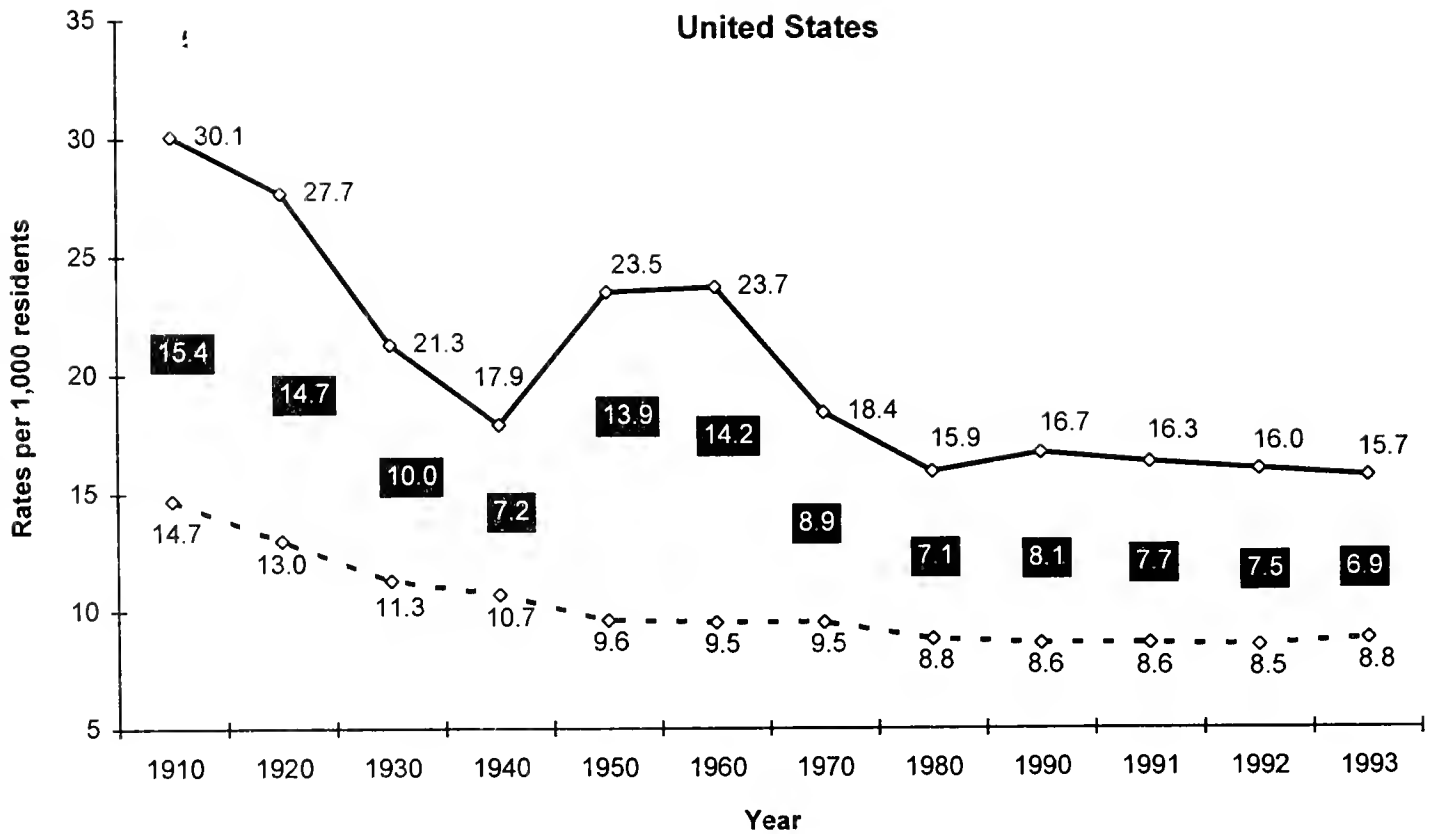


Table A-3. Massachusetts Resident Births and Deaths With Resultant Natural Increase**Massachusetts: 1900-1993**

Year	Births	Deaths	Natural Increase	Rate/1,000 Residents
1900	73,386	51,156	22,230	7.9
1905	75,022	50,486	24,536	8.2
1910	86,539	54,407	32,132	9.5
1915	93,155	53,131	40,024	10.8
1920	91,859	53,632	38,227	9.9
1925	86,014	51,890	34,124	8.2
1930	73,690	49,503	24,187	5.7
1935	62,416	49,634	12,782	2.9
1940	65,369	50,698	14,671	3.4
1945	76,455	50,763	25,692	5.7
1950	95,619	50,359	45,260	9.6
1955	109,610	53,386	56,224	11.6
1960	114,018	56,560	57,458	11.2
1965	100,262	58,853	41,409	7.8
1970	93,582	56,944	36,638	6.4
1975	68,070	53,708	14,362	2.5
1980	72,591	54,934	17,657	3.1
1981	73,930	52,813	21,117	3.7
1982	75,749	52,867	22,882	4.0
1983	76,031	54,150	21,881	3.8
1984	78,197	55,189	23,008	4.0
1985	81,781	55,597	26,184	4.5
1986	82,168	55,860	26,308	4.5
1987	84,345	55,562	28,783	4.9
1988	88,047	56,407	31,640	5.4
1989	91,314	53,748	37,566	6.4
1990	92,461	53,008	39,453	6.6
1991	88,176	53,010	35,166	5.8
1992	87,202	53,804	33,398	5.5
1993	84,627	55,557	29,070	4.8

Table A-4. Vital Events by Month, Massachusetts Residents: 1993

		- Births	Fetal Deaths¹	Deaths	Infant Deaths²	Neonatal Deaths	Marriages	Divorces
Totals		84,627	517	55,557	523	375	42,355	14,435
January	#	6,769	46	4,866	57	38	1,562	1,333
	Rank	9	6	3	1	1	12	1
February	#	6,414	32	4,864	50	33	2,025	1,124
	Rank	11	10	4	2	5	10	10
March	#	7,387	46	5,671	41	31	1,693	1,289
	Rank	4	6	1	9	6	11	3
April	#	7,158	35	4,603	42	30	2,531	1,329
	Rank	7	9	6	8	8	8	2
May	#	7,499	49	4,508	43	36	5,050	1,118
	Rank	1	3	8	6	3	4	11
June	#	7,376	47	4,247	43	35	5,078	1,241
	Rank	5	5	11	6	4	3	4
July	#	7,420	51	4,359	46	31	3,970	1,152
	Rank	2	2	9	4	6	6	8
August	#	7,392	49	4,272	37	28	4,757	1,170
	Rank	3	3	10	10	10	5	7
September	#	7,247	32	4,013	33	25	5,326	1,238
	Rank	6	10	12	12	11	2	5
October	#	6,936	40	4,701	50	38	5,742	1,096
	Rank	8	8	5	2	1	1	12
November	#	6,414	32	4,586	36	21	2,584	1,143
	Rank	11	10	7	11	12	7	9
December	#	6,615	58	4,867	45	29	2,037	1,202
	Rank	10	1	2	5	9	9	6

¹ Fetal deaths are not included in Births or Deaths. ² Infant deaths and neonatal deaths are included in total resident deaths; neonatal deaths are included in infant deaths.

TABLE A-4A
VITAL EVENTS BY COMMUNITY
1993

COMMUNITY	POPULATION (1)	LIVE BIRTHS : OCCURRENCE : RESIDENT :	DEATHS : OCCURRENCE : RESIDENT :	INFANT DEATHS : TOTAL : NEONATAL (2)	MARRIAGES : LICENSES: OCCURRENCE ISSUED : (3) : (4)	RESIDENT NATURAL INCREASE
STATE TOTAL	6,083,200	85,885 : 84,627	56,394 : 55,557	523 : 375	42,353: 42,355	29,070
ABINGTON	13,753	1	65	2	91	76
ACTON	18,248	0	69	1	99	155
ACUSHNET	9,587	0	22	1	54	-8
ADAMS	9,454	0	27	0	71	-14
AGAWAM	27,743	0	185	3	217	54
ALFORD	428	0	0	0	3	4
AMESBURY	15,349	0	133	0	125	108
AMHERST	34,660	2	61	2	156	72
ANDOVER	29,063	0	129	1	201	116
ARLINGTON	44,004	3	379	2	318	81
ASHBURNHAM	5,785	0	8	0	24	25
ASHBY	3,096	1	4	1	9	11
ASHFIELD	1,806	0	0	0	10	18
ASHLAND	12,719	0	20	0	88	168
ATHOL	11,597	3	155	0	106	5
ATTLEBORO	37,908	922	466	4	329	318
AUBURN	14,931	1	42	1	108	35
AVON	4,710	1	11	1	34	14
AYER	6,890	0	194	1	159	65
BARNSTABLE	43,184	1,147	923	3	357	40
BARRE	4,860	0	10	0	29	42
BECKET	1,808	0	4	0	5	14
BEDFORD	13,151	1	216	0	114	93
BELCHERTOWN	11,475	1	31	1	69	80
BELLINGHAM	15,344	0	23	3	115	132
BELMONT	24,500	1	87	1	262	78
BERKLEY	4,523	0	5	2	3	62
BERLIN	2,322	1	1	1	15	15
BERNARDSTON	2,080	0	5	1	10	-5
BEVERLY	38,051	2,629	631	2	255	160
BILLERICA	38,795	0	85	6	266	333
BLACKSTONE	8,323	1	17	0	62	52

(1) POPULATION DATA ARE INTERPOLATIONS OF THE 1990 U.S. CENSUS AND MISER 1995 ESTIMATES

(2) INFANT AND NEONATAL DEATHS ARE INCLUDED IN TOTAL RESIDENT DEATHS.

(3) MARRIAGE INTENTIONS MAY BE FILED IN ANY MASSACHUSETTS COMMUNITY, REGARDLESS OF WHERE THE BRIDE AND GROOM RESIDE OR WHERE THE MARRIAGE CEREMONY OCCURS.

(4) MARRIAGE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

TABLE A-4A
VITAL EVENTS BY COMMUNITY
1993

COMMUNITY	POPULATION (1)	LIVE BIRTHS OCCURRENCE : RESIDENT :	DEATHS OCCURRENCE : RESIDENT :	INFANT DEATHS TOTAL : NEONATAL (2)	MARRIAGES LICENSES : ISSUED : (3)	MARRIAGES OCCURRENCE (4)	RESIDENT NATURAL INCREASE
STATE TOTAL	6,083,200	85,885 : 84,627 :	56,394 : 55,557 :	523 : 375 :	42,353 : 42,355 :		29,070
BLANDFORD	1,283	0	0	0	5	2	19
BOLTON	3,279	0	1	0	15	19	36
BOSTON	586,115	19,253	9,056	86	3,913	3,966	3,497
BOURNE	17,188	1	112	0	99	119	94
BOXBOROUGH	3,496	1	5	0	27	16	48
BOXFORD	6,739	0	9	0	19	11	47
BOYLSTON	3,601	0	76	0	12	32	24
BRAINTREE	34,523	0	410	1	279	245	-22
BREWSTER	9,429	3	109	0	61	166	-35
BRIDGEWATER	21,182	0	35	0	122	120	142
BRIMFIELD	3,237	1	11	0	8	12	19
BROCKTON	90,712	1,359	1,314	15	561	476	685
BROOKFIELD	3,093	1	8	2	15	22	20
BROOKLINE	53,488	4	206	2	472	313	150
BUCKLAND	2,031	1	0	0	14	10	8
BURLINGTON	23,407	1	440	2	217	178	156
CAMBRIDGE	94,790	2,630	1,218	7	870	949	328
CANTON	19,100	1	60	1	149	136	81
CARLISLE	4,664	0	5	0	28	23	43
CARVER	12,088	0	21	0	52	97	48
CHARLEMONT	1,338	0	8	0	7	8	2
CHARLTON	9,981	0	45	0	44	49	71
CHATHAM	6,880	0	81	1	78	120	-61
CHELMSFORD	33,169	0	107	3	218	224	217
CHELSEA	27,434	4	141	3	268	219	301
CHESHIRE	3,625	0	7	2	15	17	6
CHESTER	1,315	0	3	0	5	6	11
CHESTERFIELD	1,330	0	0	0	6	11	6
CHICOPEE	57,151	1	239	2	374	333	90
CHILMARK	689	0	3	0	9	22	1
CLARKSBURG	1,782	0	0	0	4	8	0
CLINTON	13,018	1	94	2	116	88	84

(1) POPULATION DATA ARE INTERPOLATIONS OF THE 1990 U.S. CENSUS AND MISER 1995 ESTIMATES

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(4) MARRIAGE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

TABLE A-4A
VITAL EVENTS BY COMMUNITY
1993

COMMUNITY	POPULATION (1)	LIVE BIRTHS OCCURRENCE: RESIDENT :	DEATHS OCCURRENCE: RESIDENT :	INFANT DEATHS TOTAL : NEONATAL (2)	MARRIAGES LICENSES: OCCURRENCE ISSUED : (3)	RESIDENT NATURAL INCREASE
STATE TOTAL	6,083,200	85,885 : 84,627	56,394 : 55,557	523 : 375	42,353 : 42,355	29,070
COHASSET	7,475	0	28	0	57	25
COLRAIN	1,813	0	13	0	7	6
CONCORD	17,599	1,588	345	0	153	25
CONWAY	1,626	12	8	0	0	4
CUMMINGTON	907	14	8	1	4	6
DALTON	6,963	84	34	3	29	13
DANVERS	24,522	2	206	3	197	3
DARTMOUTH	27,532	0	94	2	150	-46
DEDHAM	23,937	1	80	4	318	42
DEERFIELD	5,112	0	12	0	28	17
DENNIS	14,788	1	115	0	84	-103
DIGHTON	5,757	73	49	0	39	24
DOUGLAS	5,605	87	36	0	29	51
DOVER	5,130	69	5	0	28	33
DRACUT	27,082	0	42	4	133	225
DUDLEY	9,623	1	18	0	96	61
DUNSTABLE	2,427	0	1	0	14	7
DUXBURY	14,452	1	52	1	82	120
EAST BRIDGEWATER	11,065	1	42	1	77	108
EAST BROOKFIELD	2,007	0	7	1	13	11
EAST LONGMEADOW	13,420	0	133	1	109	105
EASTHAM	4,959	1	19	0	28	27
EASTHAMPTON	15,971	0	40	1	136	53
EASTON	20,193	2	40	2	122	125
EDGARTOWN	3,371	2	6	1	84	20
EGREMONT	1,324	17	0	1	4	5
ERVING	1,473	11	12	0	9	-4
ESSEX	3,234	61	15	0	22	37
EVERETT	35,313	1	433	0	14	138
FAIRHAVEN	16,034	3	240	2	316	-65
FALL RIVER	90,718	1,812	1,498	6	632	199
FALMOUTH	29,030	566	420	2	238	1

(1) POPULATION DATA ARE INTERPOLATIONS OF THE 1990 U.S. CENSUS AND MISER 1995 ESTIMATES

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(4) MARRIAGE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

TABLE A-4A
VITAL EVENTS BY COMMUNITY
1993

COMMUNITY	POPULATION (1)	LIVE BIRTHS OCCURRENCE : RESIDENT	DEATHS OCCURRENCE : RESIDENT	INFANT DEATHS TOTAL : NEONATAL (2)	MARRIAGES LICENSES : OCCURRENCE ISSUED : (3)	RESIDENT NATURAL INCREASE
STATE TOTAL	6,083,200	85,885 : 84,627	56,394 : 55,557	523 : 375	42,353 : 42,355	29,070
FITCHBURG	40,584	786	458	1	275	203
FLORIDA	15,755	0	2	0	1	2
FOXBOROUGH	15,304	1	31	2	98	107
FRAMINGHAM	66,193	2,329	596	2	532	439
FRANKLIN	23,099	0	65	1	155	325
FREETOWN	8,850	0	15	0	47	42
GARDNER	20,121	310	301	1	160	77
GAY HEAD	219	0	0	0	2	-1
GEORGETOWN	6,594	0	12	0	35	50
GILL	1,598	0	5	1	4	-3
GLOUCESTER	29,477	237	277	2	205	80
GOSHEN	968	0	2	0	1	4
GOSNOLD	78	0	0	0	0	0
GRAFTON	13,101	0	36	0	91	111
GRANBY	5,787	0	16	0	31	35
GRANVILLE	1,533	0	5	0	3	9
GREAT BARRINGTON	7,585	168	234	0	95	-34
GREENFIELD	18,428	629	456	2	174	-25
GROTON	8,083	0	13	3	43	113
GROVELAND	5,285	0	8	0	21	35
HADLEY	4,198	1	16	0	36	12
HALIFAX	6,752	0	9	0	27	39
HAMILTON	7,439	0	22	0	47	62
HAMPDEN	4,913	0	36	0	23	-7
HANCOCK	619	0	1	0	3	1
HANOVER	11,887	0	27	0	68	64
HANSON	9,229	0	16	1	50	62
HARDWICK	2,522	0	8	0	38	9
HARVARD	12,846	1	9	0	31	166
HARWICH	10,900	1	96	0	80	-59
HATFIELD	3,279	0	6	0	20	10
HAVERHILL	52,394	716	607	4	313	382

(1) POPULATION DATA ARE INTERPOLATIONS OF THE 1990 U.S. CENSUS AND MISER 1995 ESTIMATES

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(4) MARRIAGE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

TABLE A-4A
VITAL EVENTS BY COMMUNITY
1993

COMMUNITY	POPULATION (1)	LIVE BIRTHS OCCURRENCE: RESIDENT	DEATHS OCCURRENCE: RESIDENT	INFANT DEATHS TOTAL (2)	MARRIAGES LICENSES: OCCURRENCE ISSUED: (3) (4)	RESIDENT NATURAL INCREASE
STATE TOTAL	6,083,200	85,885 : 84,627	56,394 : 55,557	523 : 375	42,353 : 42,355	29,070
HAWLEY	366	0	1	0	2	1
HEATH	707	7	2	0	1	3
HINGHAM	19,597	234	70	1	147	72
HINGS DALE	2,029	20	24	0	6	0
HOLBROOK	11,448	147	29	1	75	43
HOLDEN	14,631	166	57	0	74	43
HOLLAND	2,394	32	4	0	10	22
HOLLISTON	13,456	157	29	1	67	80
HOLYOKE	41,842	796	877	7	238	251
HOPEDALE	5,455	79	43	0	28	24
HOPKINTON	9,958	197	16	0	57	142
HUBBARDSTON	2,850	63	2	1	8	52
HUDSON	18,070	271	40	0	132	127
HULL	10,159	144	26	2	66	39
HUNTINGTON	2,051	35	0	0	9	25
IPSWICH	12,281	116	58	0	94	-1
KINGSTON	9,211	155	44	1	71	75
LAKEVILLE	8,351	111	40	0	48	40
LANCASTER	6,647	59	32	0	21	12
LANESBOROUGH	3,219	39	2	0	7	17
LAWRENCE	66,602	1,446	648	16	434	855
LEE	5,888	65	43	2	67	0
LEICESTER	10,313	138	19	2	48	42
LENOX	5,108	46	67	0	51	-36
LEOMINSTER	38,393	672	349	2	332	309
LEVERETT	1,849	10	1	0	9	2
LEXINGTON	29,212	275	191	0	197	37
LEYDEN	749	8	1	0	5	5
LINCOLN	7,990	59	12	0	34	22
LITTLETON	7,364	116	37	0	53	53
LONGMEADOW	15,581	136	59	0	122	-17
LOWELL	101,978	1,945	1,320	21	629	1,013

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TABLE A-4A
VITAL EVENTS BY COMMUNITY
1993

COMMUNITY	POPULATION (1)	LIVE BIRTHS OCCURRENCE: RESIDENT :	DEATHS OCCURRENCE: RESIDENT :	INFANT DEATHS TOTAL : NEONATAL (2)	MARRIAGES LICENSES: OCCURRENCE ISSUED : (3) :	RESIDENT NATURAL INCREASE
STATE TOTAL	6,083,200	85,885 : 84,627	56,394 : 55,557	523 : 375	42,353: 42,355	29,070
LUDLOW	19,267	0	152	1	139	54
LUNENBURG	9,246	0	12	0	53	27
LYNN	79,406	8	830	10	563	580
LYNNFIELD	11,329	1	18	0	68	33
MALDEN	53,670	1,344	426	4	306	218
MANCHESTER	5,398	0	13	0	41	32
MANSFIELD	16,857	0	24	0	113	290
MARBLEHEAD	19,857	1	93	3	193	87
MARION	4,561	0	69	1	28	-8
MARLBOROUGH	32,842	2	314	5	309	308
MARSHFIELD	22,085	0	46	0	190	171
MASHPEE	9,011	1	13	1	53	101
MATTAPOISETT	6,005	1	26	0	38	6
MAYNARD	10,653	0	11	3	59	85
MEDFIELD	11,003	0	18	1	37	108
MEDFORD	56,703	4	445	2	350	39
MEDWAY	10,439	0	50	1	50	102
MELROSE	28,069	1,320	438	1	193	51
MENDON	4,189	0	10	1	24	49
MERRIMAC	5,365	0	6	0	41	27
METHUEN	41,047	883	644	6	293	184
MIDDLEBOROUGH	18,141	2	93	1	104	121
MIDDLEFIELD	484	0	0	0	0	0
MIDDLETON	5,311	0	10	0	31	8
MILFORD	25,427	433	408	3	200	168
MILLBURY	12,187	0	44	0	87	60
MILLIS	7,950	0	8	0	70	118
MILLVILLE	2,394	0	5	0	22	43
MILTON	25,966	0	286	0	151	42
MONROE	112	0	0	0	0	1
MONSON	8,032	1	19	1	38	4
MONTAGUE	8,307	0	31	0	62	-1

(1) POPULATION DATA ARE INTERPOLATIONS OF THE 1990 U.S. CENSUS AND MISER 1995 ESTIMATES

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TABLE A-4A
VITAL EVENTS BY COMMUNITY
1993

COMMUNITY	POPULATION (1)	LIVE BIRTHS OCCURRENCE: RESIDENT	DEATHS OCCURRENCE: RESIDENT	INFANT DEATHS TOTAL : NEONATAL (2)	MARRIAGES LICENSES : OCCURRENCE ISSUED : (3)	RESIDENT NATURAL INCREASE
STATE TOTAL	6,083,200	85,885 : 84,627	56,394 : 55,557	523 : 375	42,353 : 42,355	29,070
MONTEREY	1,004	0	2	0	5	3
MONTGOMERY	799	0	1	0	0	3
MOUNT WASHINGTON	130	0	0	0	2	0
NAHANT	3,881	0	27	0	26	-7
NANTUCKET	6,697	80	71	0	170	30
NATICK	31,065	753	376	6	248	206
NEEDHAM	27,995	1	229	0	207	121
NEW ASHFORD	184	0	2	0	1	-1
NEW BEDFORD	97,733	1,793	1,377	8	641	229
NEW BRAINTREE	879	6	2	0	8	4
NEW MARLBOROUGH	1,403	0	4	0	9	-3
NEW SALEM	936	0	0	0	2	8
NEWBURY	5,996	0	11	0	38	31
NEWBURYPORT	16,839	830	331	1	151	161
NEWTON	83,085	4,005	704	1	666	223
NORFOLK	9,951	3	105	2	44	119
NORTH ADAMS	16,511	409	295	1	94	-2
NORTH ANDOVER	23,595	1	98	1	113	93
NORTH ATTLEBORO	25,094	1	79	2	180	221
NORTH BROOKFIELD	4,744	0	3	0	31	25
NORTH READING	12,521	0	37	2	67	126
NORTHAMPTON	29,112	1,105	625	3	244	-40
NORTHBOROUGH	12,129	0	33	0	64	119
NORTHBRIDGE	13,359	3	103	0	82	45
NORTHFIELD	2,837	0	5	1	15	5
NORTON	14,536	0	45	0	78	161
NORWELL	9,270	0	51	0	51	36
NORWOOD	29,085	1,059	665	1	286	28
OAK BLUFFS	2,816	128	80	2	45	-4
OAKHAM	1,608	1	1	0	4	20
ORANGE	7,655	1	15	2	44	46
ORLEANS	6,447	0	44	0	63	-46

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(3) MARRIAGE INTENTIONS MAY BE FILED IN ANY MASSACHUSETTS COMMUNITY, REGARDLESS OF WHERE THE BRIDE AND GROOM RESIDE OR WHERE THE MARRIAGE CEREMONY OCCURS.

(4) MARRIAGE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

TABLE A-4A
VITAL EVENTS BY COMMUNITY
1993

COMMUNITY	POPULATION (1)	LIVE BIRTHS OCCURRENCE : RESIDENT :	DEATHS OCCURRENCE : RESIDENT :	INFANT DEATHS TOTAL : NEONATAL (2) :	MARRIAGES LICENSES : OCCURRENCE ISSUED : (3) : (4)	RESIDENT NATURAL INCREASE
STATE TOTAL	6,083,200	85,885 : 84,627	56,394 : 55,557	523 : 375	42,353 : 42,355	29,070
OTIS	1,181	0	5	0	8	9
OXFORD	12,986	1	50	0	86	38
PALMER	12,406	3	123	0	85	12
PAXTON	4,166	0	8	0	17	6
PEABODY	47,402	1	275	3	319	253
PELHAM	1,539	1	1	0	6	7
PEMBROKE	14,952	0	32	3	85	8
PEPPERELL	11,098	2	13	2	49	180
PERU	899	0	2	0	1	104
PETERSHAM	1,145	0	5	0	7	2
PHILLIPSTON	1,463	0	12	0	16	2
PITTSFIELD	47,464	1,120	812	2	383	-2
PLAINFIELD	616	0	1	0	4	31
PLAINVILLE	7,042	0	16	0	46	4
PLYMOUTH	45,619	882	510	4	292	64
PLYMPTON	2,468	0	6	0	9	349
PRINCETON	3,357	0	6	0	10	15
PROVINCETOWN	3,596	0	51	0	33	24
QUINCY	86,138	1,157	771	0	741	-60
RANDOLPH	30,878	1	120	5	176	257
RAYNHAM	10,066	0	18	5	154	116
READING	22,902	0	69	0	70	51
REHOBOTH	9,179	0	83	1	147	92
REVERE	43,589	3	14	1	34	32
RICHMOND	1,702	0	153	5	245	100
ROCHESTER	4,294	0	1	0	5	8
ROCKLAND	15,830	0	12	1	22	19
ROCKPORT	7,538	0	85	1	111	127
ROWE	427	1	48	0	46	-20
ROWLEY	4,660	0	0	0	4	-1
ROYALSTON	1,237	0	26	1	24	39
RUSSELL	1,694	0	2	0	0	4
			0	1	8	24

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TABLE A-4A
VITAL EVENTS BY COMMUNITY
1993

COMMUNITY	POPULATION (1)	LIVE BIRTHS : OCCURRENCE : RESIDENT :	DEATHS : OCCURRENCE : RESIDENT :	INFANT DEATHS : TOTAL : NEONATAL (2)	MARRIAGES : LICENSES : OCCURRENCE ISSUED : (3) : (4)	RESIDENT NATURAL INCREASE
STATE TOTAL	6,083,200	85,885 : 84,627	56,394 : 55,557	523 : 375	42,353 : 42,355	29,070
RUTLAND	5,079	0	5	1	24	42
SALEM	38,449	2,072	590	4	340	165
SALISBURY	7,916	0	29	1	64	10
SANDWICH	17,847	0	6	0	4	9
SANDWICH	17,119	0	76	1	119	90
SAUGUS	25,761	0	79	0	189	64
SAVOY	742	0	0	0	2	1
SCITUATE	16,700	0	80	1	118	100
SEEKONK	13,200	1	22	3	165	39
SHARON	16,333	2	32	0	63	122
SHEFFIELD	2,949	0	11	0	25	6
SHELBORNE	2,094	0	19	0	11	-6
SHERBORN	4,228	0	5	0	29	12
SHIRLEY	6,462	0	6	0	38	40
SHREWSBURY	24,083	2	78	0	177	169
SHUTESBURY	1,628	1	3	0	2	11
SOMERSET	17,567	0	53	1	123	-32
SOMERVILLE	72,805	4	326	9	480	371
SOUTH HADLEY	16,875	1	82	1	119	21
SOUTHAMPTON	4,820	0	11	2	19	34
SOUTHBOROUGH	6,677	0	14	1	39	66
SOUTHBURGE	17,340	500	250	1	137	106
SOUTHWICK	8,114	1	10	1	70	41
SPENCER	12,118	0	15	0	81	94
SPRINGFIELD	152,795	5,809	2,456	28	1,042	1,009
STERLING	7,053	0	10	0	50	50
STOCKBRIDGE	2,392	0	4	0	31	-7
STONEHAM	22,803	1,067	192	0	163	50
STOUGHTON	27,959	1,433	454	0	207	127
STOW	5,685	0	11	0	33	43
STURBRIDGE	8,248	0	17	0	92	42
SUDBURY	14,829	2	43	0	93	104

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(4) MARRIAGE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

TABLE A-4A
VITAL EVENTS BY COMMUNITY
1993

COMMUNITY	POPULATION (1)	LIVE BIRTHS OCCURRENCE : RESIDENT :	DEATHS OCCURRENCE : RESIDENT :	INFANT DEATHS TOTAL : NEONATAL (2)	MARRIAGES LICENSES ISSUED : (3) :	RESIDENT NATURAL INCREASE
STATE TOTAL	6,083,200	85,885 : 84,627 :	56,394 : 55,557 :	523 : 375 :	42,353 : 42,355 :	29,070
SUNDERLAND	3,394	0	19	0	20	24
SUTTON	7,243	0	9	1	27	75
SWAMPSCOTT	13,465	0	63	1	68	8
SWANSEA	15,658	0	50	1	96	39
TAUNTON	49,362	673	517	7	395	407
TEMPLETON	6,603	0	33	1	25	14
TEWKSBURY	28,099	1	110	2	191	277
TISBURY	3,497	1	15	0	41	2
TOLLAND	3,311	0	0	0	1	6
TOPSFIELD	5,773	0	9	0	20	49
TOWNSEND	9,568	2	13	0	38	82
TRURO	1,605	0	16	0	22	0
TYNGSBOROUGH	9,485	0	13	0	67	63
TYRINGHAM	404	0	1	0	3	0
UPTON	4,845	3	15	0	26	48
UXBRIDGE	10,453	0	16	1	70	66
WAKEFIELD	25,374	1	124	0	163	88
WALTON	1,766	0	0	0	0	17
WALPOLE	21,257	1	70	1	132	139
WALTHAM	58,253	446	500	4	477	252
WARE	10,078	212	102	2	59	39
WAREHAM	20,371	420	236	0	119	15
WARREN	4,521	0	34	0	23	26
WARWICK	726	0	8	0	8	-1
WASHINGTON	647	0	11	0	5	-2
WATERTOWN	32,922	2	128	1	311	81
WAYLAND	12,282	1	31	0	50	79
WEBSTER	16,183	2	227	1	125	-5
WELLESLEY	26,930	2	113	1	145	112
WELLFLEET	2,728	0	20	0	28	-1
WENDELL	985	0	0	0	0	8
WENHAM	4,255	1	7	0	18	10

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(4) MARRIAGE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

TABLE A-4A
VITAL EVENTS BY COMMUNITY
1993

COMMUNITY	POPULATION (1)	LIVE BIRTHS		DEATHS		INFANT DEATHS		MARRIAGES		RESIDENT NATURAL INCREASE
		OCCURRENCE :	RESIDENT :	OCCURRENCE :	RESIDENT :	TOTAL :	NEONATAL (2)	LICENSES ISSUED :	OCCURRENCE (4)	
STATE TOTAL	6,083,200	85,885	84,627	56,394	55,557	523	375	42,353	42,355	29,070
WEST BOYLSTON	6,555	0	64	34	53	2	2	29	39	11
WEST BRIDGEWATER	6,470	0	72	10	47	0	0	47	49	25
WEST BROOKFIELD	3,772	0	34	40	28	0	0	9	45	6
WEST NEWBURY	3,631	0	42	7	19	0	1	7	22	23
WEST SPRINGFIELD	27,382	0	384	148	319	4	3	171	212	65
WEST STOCKBRIDGE	1,484	0	9	0	12	0	0	0	8	-3
WEST TISBURY	1,718	0	25	6	10	0	0	23	35	15
WESTBOROUGH	14,044	0	198	98	129	1	1	149	109	69
WESTFIELD	38,840	0	490	386	348	3	3	275	349	142
WESTFORD	17,327	1	252	42	90	0	0	109	102	162
WESTHAMPTON	1,412	0	20	0	8	0	0	3	8	12
WESTMINSTER	6,391	0	68	11	43	0	0	28	49	25
WESTON	10,468	0	99	83	91	0	0	63	118	8
WESTPORT	14,228	1	127	33	117	0	0	78	97	10
WESTWOOD	12,770	0	159	55	133	0	1	99	91	26
WEYMOUTH	55,858	2,584	754	823	488	4	2	402	348	266
WHATELY	1,455	0	20	2	11	0	0	6	9	9
WHITMAN	13,100	0	210	19	79	0	0	83	98	131
WILBRAHAM	12,875	0	131	83	114	0	2	76	93	17
WILLIAMSBURG	2,681	0	29	23	24	0	0	16	17	5
WILLIAMSTOWN	8,051	0	48	99	79	2	1	49	64	-31
WILMINGTON	18,184	0	295	90	124	1	1	122	110	171
WINCHENDON	9,126	0	112	14	59	0	0	59	41	53
WINCHESTER	20,172	2,102	246	454	190	2	2	128	159	56
WINDSOR	798	0	18	1	3	0	0	4	3	15
WINTHROP	18,285	1	227	224	204	4	3	157	118	23
WOBURN	37,338	0	473	116	309	1	1	331	257	164
WORCESTER	166,305	6,696	2,725	3,303	2,027	17	11	989	1,115	698
WORTHINGTON	1,417	0	12	0	9	0	0	6	8	3
WRENTHAM	9,646	1	150	63	86	0	0	40	68	64
YARMOUTH	21,827	0	204	193	364	0	0	156	164	-160

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(4) MARRIAGE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

TABLE A-4B
VITAL EVENTS BY COUNTY
1993

COUNTY	POPULATION (1)	LIVE BIRTHS		DEATHS		INFANT DEATHS		MARRIAGES (3)	DIVORCES (3)	RESIDENT NATURAL INCREASE
		OCCURRENCE :	RESIDENT :	OCCURRENCE :	RESIDENT :	TOTAL :	NEONATAL (2)			
STATE TOTAL	6,083,200	85,885	84,627	56,394	55,557	523	375	42,355	14,435	29,070
BARNSTABLE	198,691	1,721	2,154	2,278	2,359	8	7	2,012	617	-205
BERKSHIRE	139,379	1,697	1,567	1,701	1,548	13	10	1,038	455	19
BRISTOL	504,582	5,209	7,065	4,519	4,967	40	28	3,441	1,499	2,098
DUKES	12,388	131	155	110	122	3	3	337	56	33
ESSEX	673,904	9,245	9,921	5,965	6,302	59	41	4,989	1,813	3,619
FRANKLIN	71,532	633	814	585	682	7	4	451	233	132
HAMPDEN	454,693	7,025	6,511	4,930	4,713	57	39	3,056	1,492	1,798
HAMPSHIRE	149,660	1,323	1,545	1,019	1,156	13	8	962	361	389
MIDDLESEX	1,414,546	20,537	19,373	11,038	11,601	105	77	9,499	1,433	7,772
NANTUCKET	6,697	80	103	71	73	0	0	282	23	30
NORFOLK	630,758	6,254	8,401	4,826	5,535	38	29	4,176	1,560	2,866
PLYMOUTH	438,304	2,668	6,335	3,082	3,603	37	25	2,960	1,473	2,732
SUFFOLK	675,423	19,261	10,233	9,574	6,312	98	74	4,553	1,238	3,921
WORCESTER	712,643	10,101	10,450	6,696	6,584	45	30	4,599	2,182	3,866

(1) POPULATION DATA ARE INTERPOLATIONS OF THE 1990 U.S. CENSUS AND THE MISER 1995 ESTIMATES.

(2) INFANT AND NEONATAL DEATHS ARE INCLUDED IN TOTAL RESIDENT DEATHS.

(3) MARRIAGE AND DIVORCE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

BIRTHS

SECTION B

BIRTHS

There were 84,627 live births to Massachusetts residents in 1993, a 2.9% decrease from the 87,202 resident live births in 1992. Live births to Massachusetts residents include all births to Massachusetts residents, regardless of the state in which they occurred. Most data presented in this section are resident data. Table B-10 presents births by hospital/birthing center of occurrence.

OCCURRENCE BIRTHS

In 1993, 85,885 births occurred in Massachusetts. All but 361 births occurred at the 58 hospitals with maternity units or birthing centers in this state. The number of babies delivered at these hospitals/birthing centers ranged from 55 at Holyoke Hospital¹ in Holyoke to 8,581 at Brigham and Women's Hospital in Boston. The median number of births per facility was 1,109, an increase from the median number of 1,097 in 1992. The four hospitals with the greatest numbers of births -- Brigham and Women's (8,581), Baystate Medical Center (5,791), Beth Israel (5,316), and Medical Center of Central Massachusetts--Memorial² (4,034) -- represented 27.6% of all births occurring in Massachusetts. The distribution of Massachusetts births by hospital size is presented below.

**1993 DISTRIBUTION OF MASSACHUSETTS
OCCURRENCE BIRTHS BY HOSPITAL**

NUMBER OF BIRTHS AT HOSPITAL	NUMBER OF HOSPITALS IN CATEGORY	TOTAL NUMBER OF BIRTHS IN CATEGORY	% OF TOTAL BIRTHS
< 500	12	2,982	3.5
500-999	14	10,170	11.8
1000-1499	14	17,284	20.1
1500-1999	6	10,734	12.5
≥ 2000	12	44,354	51.6
ALL OTHER ³		361	0.4
TOTAL	58	85,885	100.0 ⁴

¹ Holyoke Hospital became a maternity facility on August 17, 1993.

² Formerly known as Worcester Memorial Hospital.

³ Includes hospitals without maternity units, home births, births en route to hospital and births occurring in a doctor's office/clinic.

⁴ Percents do not sum to 100.0 due to rounding.

BIRTHS BY RACE/ETHNICITY

There are a number of points to keep in mind when analyzing 1993 data by race/ethnicity. Since June 1986, information on both race and ethnicity rather than just race has been collected. This provides improved data, particularly for Hispanic births. Presented for comparison below are resident birth data for calendar years 1992 and 1993, utilizing maternal race and ethnicity information:

RACE AND ETHNICITY OF MOTHER 1992 - 1993

MATERNAL RACE/ETHNICITY	1993		1992		+ OR -
	TOTAL BIRTHS	% OF BIRTHS	TOTAL BIRTHS	% OF BIRTHS	
White non-Hispanic	65,471	77.4	67,592	77.5	- 2,121
Black non-Hispanic	6,417	7.6	6,675	7.7	- 258
Hispanic	8,250	9.7	8,501	9.7	- 251
Asian	3,334	3.9	3,277	3.8	+ 57
Other ⁵	983	1.2	974	1.1	+ 9
Unknown ⁶	172	0.2	183	0.2	- 11
TOTAL	84,627	100.0	87,202	100.0	- 2,575

The final point which must be considered is the method used to present data by race/ethnicity. Massachusetts follows the recommendation from the National Center for Health Statistics (NCHS) for classifying race/ethnicity on the birth certificate according to the self-reported race/ethnicity of the mother. In the past, the race/ethnicity of the infant was assigned by combining information on the race/ethnicity of the mother and the race/ethnicity of the father. Beginning with 1989 births, birth data are presented by race/ethnicity of the mother only.

TEEN BIRTHS

For the fourth consecutive year, the number of births to mothers between the ages of 15 and 19 decreased -- from 6,555 in 1992 to 6,469 in 1993. However, the percentage of all Massachusetts resident births to mothers in this age group increased slightly -- from 7.5% in 1992 to 7.6% in 1993. The age-specific birth rate decreased from 31.8 to 31.5.

⁵ Other races include American Indian, Hawaiian, and Other.

⁶ Unknown race: mothers did not indicate a race/ethnicity.

BIRTHS BY MARITAL STATUS

The proportion of unmarried mothers increased from 25.9% of all resident births in 1992 to 26.4% of all resident births in 1993. Over 89% of the mothers under the age of 20 were unmarried, while 21.1% of the mothers aged 20 or older were unmarried.

BIRTHS BY AGE OF MOTHER

Excluding mothers whose age was unknown and those in the ≥ 45 age group, the largest percentage increase in births between the years 1992 and 1993 (8.2%) were to mothers in the 40-44 age group, as shown below:

AGE OF MOTHER	NUMBER OF BIRTHS 1993	NUMBER OF BIRTHS 1992	DIFFERENCE IN THE NO. OF BIRTHS 1992-1993	PERCENTAGE CHANGE 1992-1993
< 20	6,606	6,675	- 69	- 1.0
20-24	14,679	15,867	- 1,188	- 7.5
25-29	24,899	26,799	- 1,900	- 7.1
30-34	25,865	25,719	+ 146	+ 0.6
35-39	10,728	10,442	+ 286	+ 2.7
40-44	1,775	1,640	+ 135	+ 8.2
≥ 45	69	56	+ 13	+ 23.2

BIRTHS BY CAESAREAN SECTION

The number of Caesarean section deliveries to Massachusetts residents decreased from 19,302 in 1992 to 18,460 in 1993. The C-section rate per 1,000 live births decreased slightly from 221.3 in 1992 to 218.1 in 1993. The lowest rate of C-sections (when the mother's age was known) was for mothers less than the age of 19 (133.4 per 1,000 live births), and the highest rate was for women aged 40 and over (313.4 per 1,000 live births).

HOSPITAL PROFILES

The following is a synopsis of the data presented in Table B-10, Hospital Profiles, Massachusetts Occurrence Births:

- In 1993, 85,885 births occurred in Massachusetts, a decrease of about 9% since 1990. Caesarean section was the method of delivery for 21.5% of these births. (Calculations are based on births with known method of delivery.)

- In 1993, five hospitals showed a percentage of 10% or higher for low birthweight deliveries. These hospitals were: Boston City, Brigham and Women's, Medical Center of Central Massachusetts--Worcester, New England Medical Center, and St. Margaret's.
- In five hospitals, 50% or more of the deliveries were paid with public funds: Boston City, Cambridge, Holyoke, Providence, and St. Margaret's. In five hospitals, less than 10% of deliveries were paid with public funds: Emerson, New England Memorial--Stoneham, Newton-Wellesley, Norwood, and South Shore.
- In 1993, twenty-seven of the fifty-eight licensed maternity facilities exceeded the state-wide average (83.8%) for adequacy of prenatal care for their patients. However, two maternity facilities had less than 60% of their patients receiving adequate prenatal care: Boston City and Holyoke.
- Statewide, the lowest rates of Caesarean section deliveries were at the following hospitals: Burbank (9.5%), Providence (11.7%), and Cambridge (13.6%).
- In 1993, two hospitals reported Caesarean section as the method of delivery for 30% or more of births: Morton Hospital (33.2%) and New England Medical Center (30.1%).

LOW BIRTHWEIGHT INFANTS

The percentage of low birthweight infants (less than 2,500 grams or five pounds eight ounces) increased from 5.9% in 1992 to 6.1% in 1993. The actual number of low birthweight deliveries also increased from 5,137 births in 1992 to 5,202 births in 1993. The percent of low birthweight babies born to mothers under the age of 20 increased from 10.4% in 1992 to 11.0% in 1993.

DEFINITIONS IMPORTANT FOR THIS SECTION INCLUDE:

ADEQUACY OF PRENATAL CARE

The Index of Adequacy of Prenatal Care (based on the Kessner Index) has five categories (adequate, intermediate, inadequate, no prenatal care, and unknown), based on the trimester in which prenatal care began and the number of prenatal visits. The general classification scheme is as follows:

CATEGORY	TRIMESTER CARE BEGAN	# OF VISITS
Adequate	1	9 or more
Intermediate	1	5-8
	2	5 or more
Inadequate	1	1-4
	2	1-4
	3	1 or more
No prenatal care	--	0
Unknown	Unknown	Unknown

This classification is adjusted for gestational age to allow for proper classification of premature births.

BIRTHWEIGHT

The weight of an infant recorded at the time of delivery. It may be recorded in either pounds/ounces or grams. If recorded in pounds/ounces, it is converted to grams for use in this report.

1 pound = 453.6 grams

1,000 grams = 2 pounds, 3 ounces

BIRTHWEIGHT CATEGORIES

Normal birthweight (NBW): An infant's weight of 2,500 grams (5.5 pounds) or more recorded at birth.

Low birthweight (LBW): An infant's weight of less than 2,500 grams (5.5 pounds) recorded at birth.

Very low birthweight (VLBW): An infant's weight of less than 1,500 grams (3.3 pounds) recorded at birth.

CAESAREAN SECTION or C-SECTION

Primary: A mother's first Caesarean section delivery.

Repeat: A Caesarean delivery that has been preceded by at least one Caesarean delivery.

ETHNICITY

See Race.

INFANT

A child whose age is less than one year (365 days).

LIVE BIRTH

A live birth is any infant who breathes or shows any other evidence of life (such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles) after separation from the mother's uterus, regardless of the duration of gestation.

LOW BIRTHWEIGHT (LBW)

See Birthweight Categories.

NEONATE

A child under 28 days of age.

NORMAL BIRTHWEIGHT (NBW)

See Birthweight Categories.

OCCURRENCE BIRTH

A birth occurring in the Commonwealth of Massachusetts, regardless of the residency of the mother. In Massachusetts, the place will be one of the 351 cities or towns. See Resident Birth.

PARITY

Total number of live births, including the present birth, ever born to the mother.

POST NEONATE

A child whose age is at least 28 days, but less than one year.

PRIMARY

See Caesarean Section.

RACE

Assignment of an Infant's Race/Ethnicity: Prior to 1989, the race/ethnicity of an infant was assigned by combining information on the race/ethnicity of the mother and the race/ethnicity of the father. Since 1989, Massachusetts has followed the National Center for Health Statistics' recommendation of classifying births according to the self-reported race/ethnicity of the mother. Therefore, beginning in 1989, the race/ethnicity of an infant is identical to the self-reported race/ethnicity of the infant's mother.

Race of mother: For data presented in this publication, mother's race is as reported by the infant's mother.

Hispanic Ethnicity: Beginning in 1986, an identifier for Hispanic ethnicity was added to the birth certificate. Prior to this change, most Hispanics were included with whites and it was not possible to accurately calculate Hispanic-specific rates of natality.

REPEAT

See Caesarean Section.

RESIDENT BIRTH

The birth of an infant whose mother reports that her usual place of residence is in Massachusetts. In Massachusetts, a resident is a person with a permanent address in one of the 351 cities or towns. Vital statistics data may be presented in terms either of residence or occurrence. Unless otherwise noted, all data in this publication are resident data. Resident data include all events that occur to residents of the Commonwealth, wherever they occur. Occurrence data include all events that occur within the state, whether to residents or non-residents. There is an exchange agreement among the 50 states, Canada, Puerto Rico, Guam, the Virgin Islands, and the District of Columbia that provides for exchange of copies of birth and death records. These records are used for statistical purposes only, and allow each state or province to track the births and deaths of its residents.

VERY LOW BIRTHWEIGHT (VLBW)

See Birthweight Categories.

RATES IMPORTANT FOR THIS SECTION INCLUDE:

AGE-SPECIFIC BIRTH RATE $\frac{\text{No. of Resident Live Births for a Specific Age Group of Mothers}}{\text{Total Female Population of That Specific Age Group}} \times 1,000$

CRUDE BIRTH RATE $\frac{\text{No. of Resident Live Births}}{\text{Total Resident Population}} \times 1,000$

GENERAL FERTILITY RATE $\frac{\text{No. of Resident Live Births}}{\text{Total Female Population of Childbearing Age (15-44)}} \times 1,000$

Figure B-1

Everyday in 1993, residents of Massachusetts experienced an average of:



232 Births



14 Births weighing less than 2500 grams (low birthweight)



18 Births to women aged 15 through 19



34 Births to women aged 35 or older



38 Births with less than adequate prenatal care



51 Births by Caesarean Section

Table B-1. Trends in Birth Characteristics, Massachusetts Residents: 1980, 1985, 1989-1993

Year		1980	1985	1989	1990	1991	1992	1993
Births	# ¹ Rate ²	72,591 53.4	81,781 57.5	91,314 61.9	92,461 62.1	88,176 59.5	87,202 59.2	84,627 57.7
Race of Mother								
White ³	# %	66,220 91.2	71,854 87.9	80,027 87.6	80,775 87.4	76,983 87.3	76,052 87.2	73,704 87.1
Black	# %	4,626 6.4	5,099 6.2	7,374 8.1	7,729 8.3	7,352 8.3	7,203 8.3	6,916 8.2
Other ⁴	# %	1,069 1.5	1,741 2.1	3,526 3.9	3,688 4.0	3,566 4.0	3,582 4.1	3,664 4.3
Unknown	# %	676 0.9	3,087 3.8	387 0.4	269 0.3	275 0.3	365 0.4	343 0.4
Teenage Births	# Rate ⁵	7,694 28.1	6,859 28.7	7,606 35.9	7,258 35.4	6,892 33.4	6,555 31.8	6,469 31.5
Births to Unmarried Mothers	# %	11,356 15.6	15,044 18.4	21,756 23.8	22,837 24.7	22,852 25.9	22,612 25.9	22,345 26.4
Low Birthweight	# %	4,413 6.1	4,751 5.8	5,372 5.9	5,388 5.8	5,199 5.9	5,137 5.9	5,202 6.1
Adequate Prenatal Care	% ⁶ %	82.0 79.6	79.4 78.6	78.8 77.6	80.1 78.8	81.6 81.2	82.9 82.7	83.8 83.6

¹ Differences in numbers of births from previous publications are the result of updated files. ² Rate per 1,000 women aged 15-44. Differences in rates from previous publications are the result of modifications of population estimates. ³ On tables and graphs which include data prior to June 1986, the race classifications do not include an ethnicity component; most Hispanics are included in the race category of white. ⁴ Other races include Asian, American Indian, Hawaiian, and Other. ⁵ Rate per 1,000 females aged 15-19. ⁶ Percentages in upper row are based on births with known scores of adequacy of prenatal care; bottom row percentages are based on total numbers of births.

Table B-2. Age-Specific and Crude Birth Rates

Massachusetts Resident Births: 1992-1993

Mother's Age	<u>1992</u>		<u>1993</u>		Percent Change
	<u>Births</u> Population ¹	Rate	<u>Births</u> ² Population	Rate	
Under 15	<u>121</u> 105,231	1.1	<u>137</u> 107,106	1.3	+ 18.2
15-19	<u>6,555</u> 205,976	31.8	<u>6,469</u> 205,561	31.5	- 0.9
20-24	<u>15,866</u> 247,323	64.2	<u>14,679</u> 240,725	61.0	- 5.0
25-29	<u>26,799</u> 265,591	100.9	<u>24,899</u> 258,867	96.2	- 4.7
30-34	<u>25,719</u> 268,463	95.8	<u>25,865</u> 265,883	97.3	+ 1.6
35-39	<u>10,442</u> 250,482	41.7	<u>10,728</u> 253,722	42.3	+ 1.4
40-44	<u>1,640</u> 232,545	7.0	<u>1,775</u> 237,820	7.5	+ 7.1
45 And Over	<u>56</u> 183,305	--	<u>69</u> 189,579	--	--
General Fertility Rate, ages 15-44 ³	<u>87,021</u> 1,470,380	59.2	<u>84,415</u> 1,462,578	57.7	- 2.5
Crude Birth Rate ⁴	<u>87,202</u> 6,060,943	14.4	<u>84,627</u> 6,083,200	13.9	- 3.5

¹ Massachusetts 1992 and 1993 population data are interpolations of the 1990 US Census and 1995 MISER projections. ² Differences in numbers of births from previous publications are the result of updated files. ³ Births per 1,000 females aged 15-44. ⁴ Births per 1,000 residents.

Figure B-2

**Resident Live Births by Mother's Race/Ethnicity
1993**

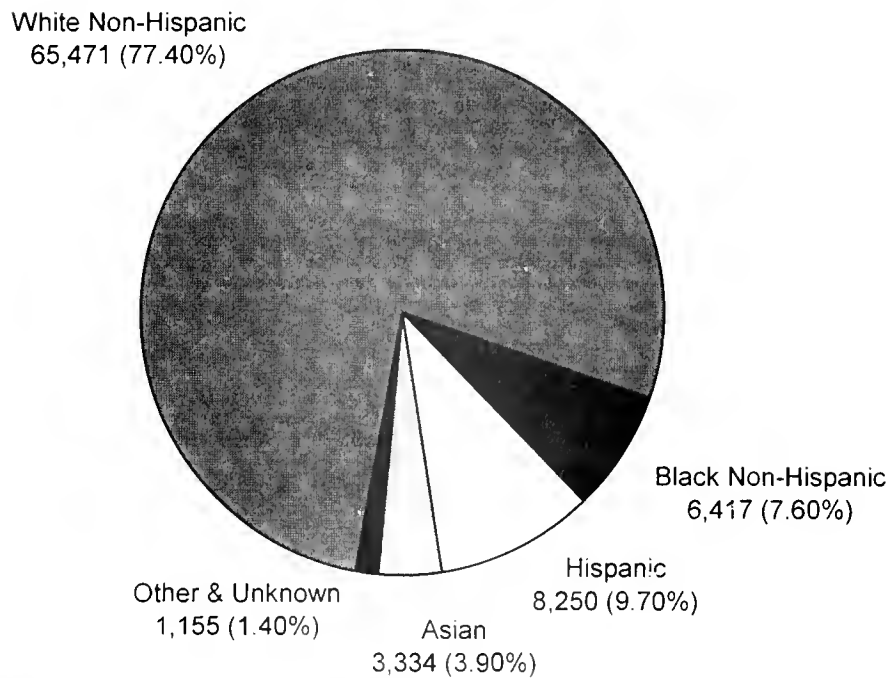


Figure B-3

**Resident Live Births by Mother's Age
1993**

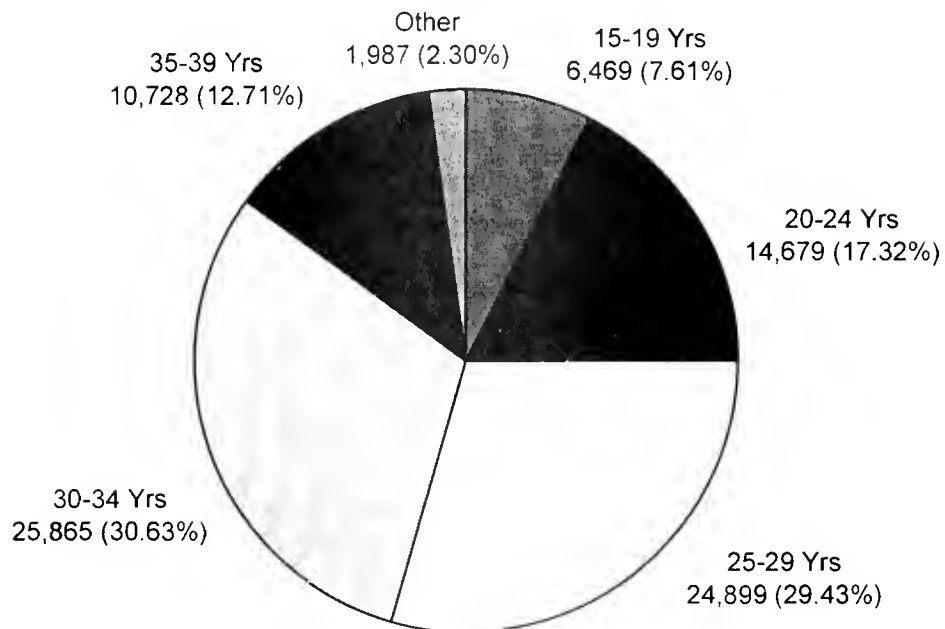


Table B-3. Births By Mother's Age, Marital Status and Race/Ethnicity, Massachusetts Resident Births: 1993

Age of Mother	Marital Status	Total	White Non-Hispanic	Black Non-Hispanic	Hispanic	Asian	Other	Unknown
Grand Total¹		84,627	65,471	6,417	8,250	3,334	983	172
Total Married		62,280	53,453	2,295	3,304	2,599	495	134
Total Unmarried		22,345	12,017	4,122	4,946	735	488	37
< 15	Total	137	37	28	64	2	2	0
	Married	0	0	0	0	0	0	0
	Unmarried	137	37	28	64	2	2	0
15	Total	360	126	73	140	9	12	0
	Married	16	4	0	8	3	1	0
	Unmarried	344	122	73	132	6	11	0
16	Total	741	316	135	256	18	15	1
	Married	36	10	1	22	3	0	0
	Unmarried	705	306	134	234	15	15	1
17	Total	1,259	616	198	356	46	39	4
	Married	77	37	4	30	2	3	1
	Unmarried	1,182	579	194	326	44	36	3
18	Total	1,872	1,016	288	482	44	42	0
	Married	214	113	10	81	5	5	0
	Unmarried	1,658	903	278	401	39	37	0
19	Total	2,237	1,339	281	511	59	44	3
	Married	380	247	14	97	15	7	0
	Unmarried	1,857	1,092	267	414	44	37	3
20-24	Total	14,679	9,623	1,662	2,564	561	250	19
	Married	6,686	5,163	290	848	288	87	10
	Unmarried	7,993	4,460	1,372	1,716	273	163	9
25-29	Total	24,899	19,816	1,660	2,086	1,021	262	54
	Married	20,327	17,406	730	1,113	863	174	41
	Unmarried	4,572	2,410	930	973	158	88	13
30-34	Total	25,865	21,989	1,383	1,258	985	204	46
	Married	23,307	20,641	786	795	902	142	41
	Unmarried	2,557	1,348	597	463	83	62	4
35-39	Total	10,728	9,106	586	441	465	95	35
	Married	9,635	8,483	378	260	417	65	32
	Unmarried	1,092	622	208	181	48	30	3
40-44	Total	1,775	1,439	115	85	112	14	10
	Married	1,549	1,309	78	48	95	10	9
	Unmarried	226	130	37	37	17	4	1
≥ 45	Total	69	45	7	5	10	2	0
	Married	50	38	4	1	6	1	0
	Unmarried	19	7	3	4	4	1	0

¹ Grand total includes six women of unknown age.

Table B-4. Resident Births to Teenage Mothers: 1970-1993

Year	Total Births	<u>Age of Mother</u>								Total 12-19	% of Total Births
		12	13	14	15	16	17	18	19		
1970	93,582	3	8	70	320	802	1,726	3,043	4,285	10,257	11.0
1971	86,755	3	23	84	313	875	1,738	2,981	4,000	10,017	11.5
1972	76,835	1	20	103	348	955	1,841	2,834	3,690	9,792	12.7
1973	72,237	0	12	93	393	959	1,759	2,584	3,282	9,082	12.6
1974	70,071	2	16	79	333	895	1,762	2,524	3,181	8,792	12.5
1975	68,070	2	18	84	325	915	1,678	2,560	3,085	8,667	12.7
1976	65,947	7	12	96	336	807	1,478	2,332	2,923	7,991	12.1
1977	67,838	1	18	68	270	792	1,477	2,293	2,913	7,832	11.5
1978	68,526	3	15	67	303	737	1,445	2,252	2,979	7,801	11.4
1979	70,568	2	9	70	283	773	1,413	2,306	2,916	7,772	11.0
1980	72,591	1	14	56	300	740	1,360	2,202	3,092	7,765	10.7
1981	73,931	1	12	82	275	722	1,357	2,164	2,816	7,429	10.0
1982	75,749	1	14	83	299	753	1,328	2,161	2,722	7,361	9.7
1983	76,031	0	8	78	255	726	1,278	2,053	2,521	6,919	9.1
1984	78,198	1	8	75	265	714	1,307	2,061	2,585	7,016	9.0
1985	81,776	4	12	97	295	698	1,283	1,986	2,595	6,970	8.5
1986	82,163	0	15	82	334	712	1,233	1,954	2,521	6,851	8.3
1987	84,343	2	15	79	327	796	1,337	1,965	2,498	7,019	8.3
1988	88,047	0	27	120	352	732	1,450	2,068	2,511	7,260	8.2
1989	91,314	0	19	108	345	853	1,426	2,207	2,776	7,734	8.5
1990	92,461	3	18	103	351	810	1,344	2,014	2,739	7,382	8.0
1991	88,176	2	18	102	372	758	1,391	1,910	2,461	7,014	7.9
1992	87,202	3	14	103	341	782	1,327	1,753	2,352	6,675	7.6
1993	84,627	1	15	121	360	741	1,259	1,872	2,237	6,606	7.8

Table B-5. Births by Birthweight and Mother's Race/Ethnicity, Massachusetts Resident Births: 1993

Birthweight (in grams)	Total		White		Black		Hispanic		Asian		Other		Unknown	
	#	% ¹	#	%	#	%	#	%	#	%	#	%	#	%
State Total	84,627	100.0	65,471	100.0	6,417	100.0	8,250	100.0	3,334	100.0	983	100.0	172	100.0
<500	101	0.1	65	0.1	21	0.3	14	0.2	1	-- ²	0	--	0	--
500-999	350	0.4	216	0.3	71	1.1	47	0.6	10	0.3	4	--	2	--
1,000-1,499	511	0.6	351	0.5	70	1.1	66	0.8	16	0.5	7	0.7	1	--
VLBW (0-1,499) ³	962	1.1	632	1.0	162	2.5	127	1.5	27	0.8	11	1.1	3	--
1,500-1,999	1,059	1.3	721	1.1	165	2.6	129	1.6	23	0.7	17	1.7	4	--
2,000-2,499	3,181	3.8	2,163	3.3	408	6.4	412	5.0	145	4.3	49	5.0	4	--
LBW (0-2,499) ⁴	5,202	6.1	3,516	5.4	735	11.5	668	8.1	195	5.8	77	7.8	11	6.4
2,500-2,999	12,439	14.7	8,591	13.1	1,342	20.9	1,548	18.8	739	22.2	199	20.2	20	11.6
3,000-3,499	30,141	35.6	22,705	34.7	2,372	37.0	3,244	39.3	1,406	42.2	383	39.0	31	18.0
3,500-3,999	26,312	31.1	21,566	32.9	1,503	23.4	2,116	25.6	836	25.1	243	24.7	48	27.9
4,000-4,499	8,741	10.3	7,584	11.6	379	5.9	568	6.9	131	3.9	65	6.6	14	8.1
4,500-4,999	1,450	1.7	1,276	1.9	57	0.9	86	1.0	16	0.5	14	1.4	1	--
≥ 5,000	161	0.2	133	0.2	13	0.2	10	0.1	3	--	1	--	1	--
Unknown	181	0.2	100	0.2	16	0.2	10	0.1	8	0.2	1	--	46	26.7

¹ Percentages are based on column totals. ² Calculations based on fewer than five events are excluded. ³ VLBW: Very Low Birthweight (< 1,500 grams or 3.3 pounds). ⁴ LBW: Low Birthweight (< 2,500 grams or 5.5 pounds).

Table B-6. Birth Characteristics by Mother's Race/Ethnicity, Massachusetts Resident Births: 1993

Mother's Race/Ethnicity	Births ¹		Teenage Births				Birthweight				Prenatal Care				Caesarean Sections				Breast Feeding ²			
	#	%	< 18 Years		< 20 Years		Very Low ³		Low ⁴		Adequate		1st Trimester		Caesarean Sections		Breast Feeding ²					
			#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%				
State Total	84,627	100.0	2,497	3.0	6,606	7.8	962	1.1	5,202	6.1	70,718	83.8	74,309	88.0	18,146	21.5	51,840	62.4				
White Non-Hispanic	65,471	77.4	1,095	1.7	3,450	5.3	632	1.0	3,516	5.4	56,939	87.1	59,528	91.1	14,452	22.1	40,329	63.0				
Black Non-Hispanic	6,417	7.6	434	6.8	1,003	15.6	162	2.5	735	11.5	4,463	69.7	4,853	75.8	1,347	21.1	3,809	59.6				
Haitian	948	1.1	15	1.6	39	4.1	30	3.2	95	10.0	687	72.8	742	78.5	239	25.5	753	79.6				
Other Black	5,469	6.5	419	7.7	964	17.6	132	2.4	640	11.7	3,776	69.2	4,111	75.3	1,108	20.4	3,056	56.1				
Hispanic	8,250	9.7	816	9.9	1,809	21.9	127	1.5	668	8.1	6,036	73.4	6,445	78.3	1,590	19.4	5,239	63.8				
Puerto Rican	4,480	5.3	655	14.6	1,386	30.9	76	1.7	407	9.1	3,074	68.8	3,340	74.7	782	17.5	2,250	50.6				
Dominican	1,379	1.6	79	5.7	184	13.3	21	1.5	100	7.3	1,133	82.3	1,173	85.1	338	24.7	1,086	78.9				
Central American	960	1.1	29	3.0	95	9.9	12	1.3	80	8.3	677	71.0	717	75.2	161	16.8	782	81.5				
Other Hispanic	1,431	1.7	53	3.7	144	10.1	18	1.3	81	5.7	1,152	80.6	1,215	85.0	309	21.7	1,121	78.6				
Asian	3,334	3.9	77	2.3	180	5.4	27	0.8	195	5.8	2,478	74.5	2,635	79.2	499	15.0	1,827	55.0				
Chinese	979	1.2	3	.. ⁵	7	0.7	8	0.8	44	4.5	840	85.9	885	90.5	160	16.4	624	63.9				
Vietnamese	634	0.7	22	3.5	56	8.8	7	1.1	36	5.7	406	64.1	449	70.9	82	12.9	142	22.4				
Cambodian	544	0.6	34	6.3	75	13.8	5	0.9	48	8.8	273	50.3	291	53.7	38	7.0	102	18.8				
Other S.E. Asian	143	0.2	8	5.6	19	13.3	0	..	6	4.2	92	64.3	98	68.5	16	11.4	77	53.8				
Other Asian	1,034	1.2	10	1.0	23	2.2	7	0.7	61	5.9	867	84.1	912	88.3	203	19.7	882	86.2				
Other ⁶	983	1.2	70	7.1	156	15.9	11	1.1	77	7.8	708	72.2	751	76.6	231	23.7	578	60.1				
Unknown ⁷	172	0.2	5	2.9	8	4.7	3	..	11	6.4	94	81.7	97	84.3	27	18.4	58	69.9				

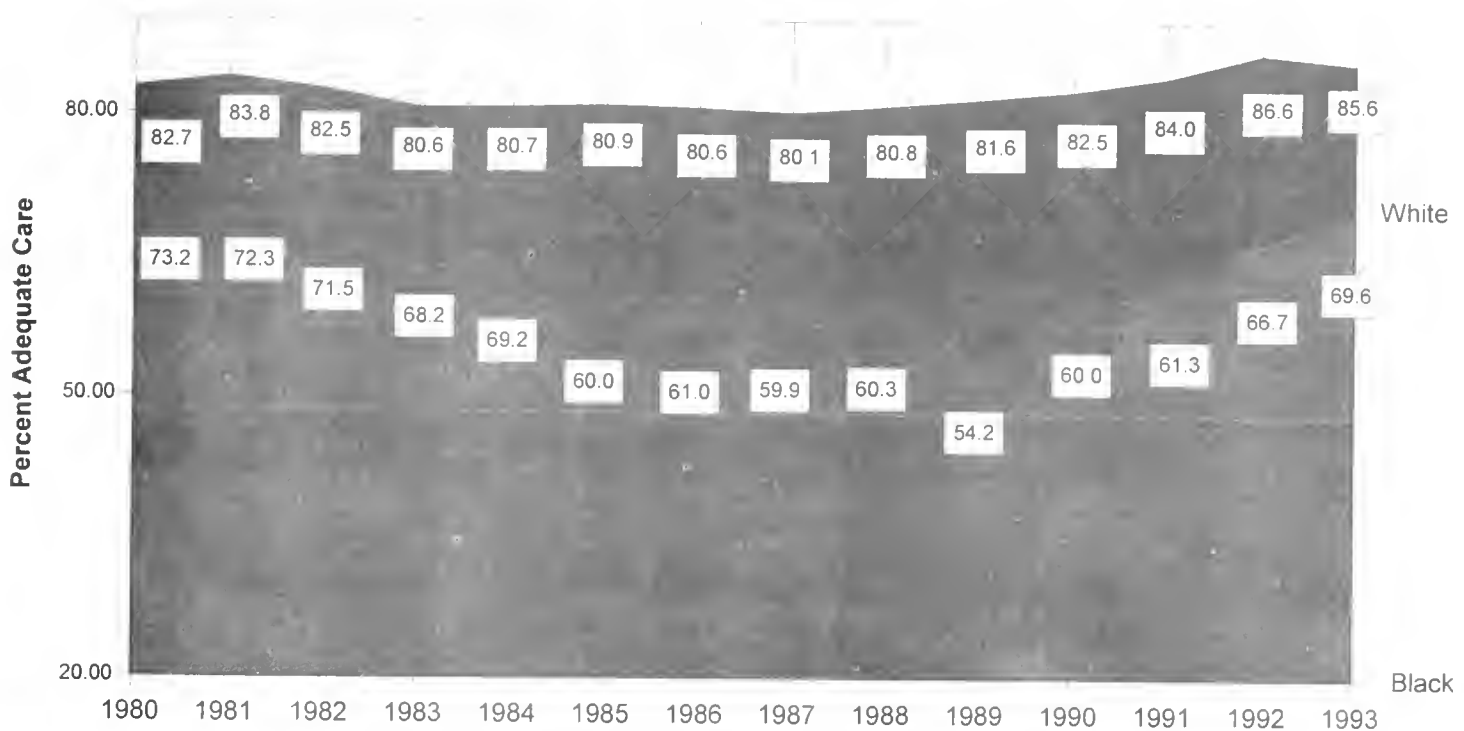
¹ In the Births category, percentages are based on column totals. For Prenatal Care, Caesarean Section, and Breast Feeding variables, percentages are calculated only for cases where information is known. ² Mother was breastfeeding or was intending to breastfeed at the time the birth certificate was completed. ³ Very Low Birthweight: < 1,500 grams or 3.3 pounds. ⁴ Low Birthweight: < 2,500 grams or 5.5 pounds. ⁵ Calculations based on fewer than five events are excluded. ⁶ Other: Mothers who designated themselves as Other race. These 983 births included births to 395 women who designated their race as Other and their ancestry as Cape Verdean; 182 women who designated their race as Other and their ancestry as Asian; 28 Asian Indian ancestry, 22 Haitian ancestry, 19 Iranian ancestry, etc.

⁷ Unknown: Mothers who did not indicate a race/ethnicity.

¹ In the Births category, percentages are based on column totals. For all other categories, percentages are based on row totals. For Prenatal Care, Caesarean Section, and Breast Feeding variables, percentages are calculated only for cases where information is known. ² Mother was breastfeeding or was intending to breastfeed at the time the birth certificate was completed. ³ Very Low Birthweight: < 1,500 grams or 3.3 pounds. ⁴ Low Birthweight: < 2,500 grams or 5.5 pounds. ⁵ Calculations based on fewer than five events are excluded. ⁶ Other: Mothers who designated themselves as Other race. These 983 births included births to 395 women who designated their race as Other and their ancestry as Cape Verdean; 182 women who designated their race as Other and their ancestry as American; 28 Asian Indian ancestry, 22 Haitian ancestry, 19 Iranian ancestry, etc. ⁷ Unknown: Mothers who did not indicate a race/ethnicity.

Figure B-4

**Trends in Adequacy of Prenatal Care¹
by Mother's Race²
Massachusetts: 1980-1993**

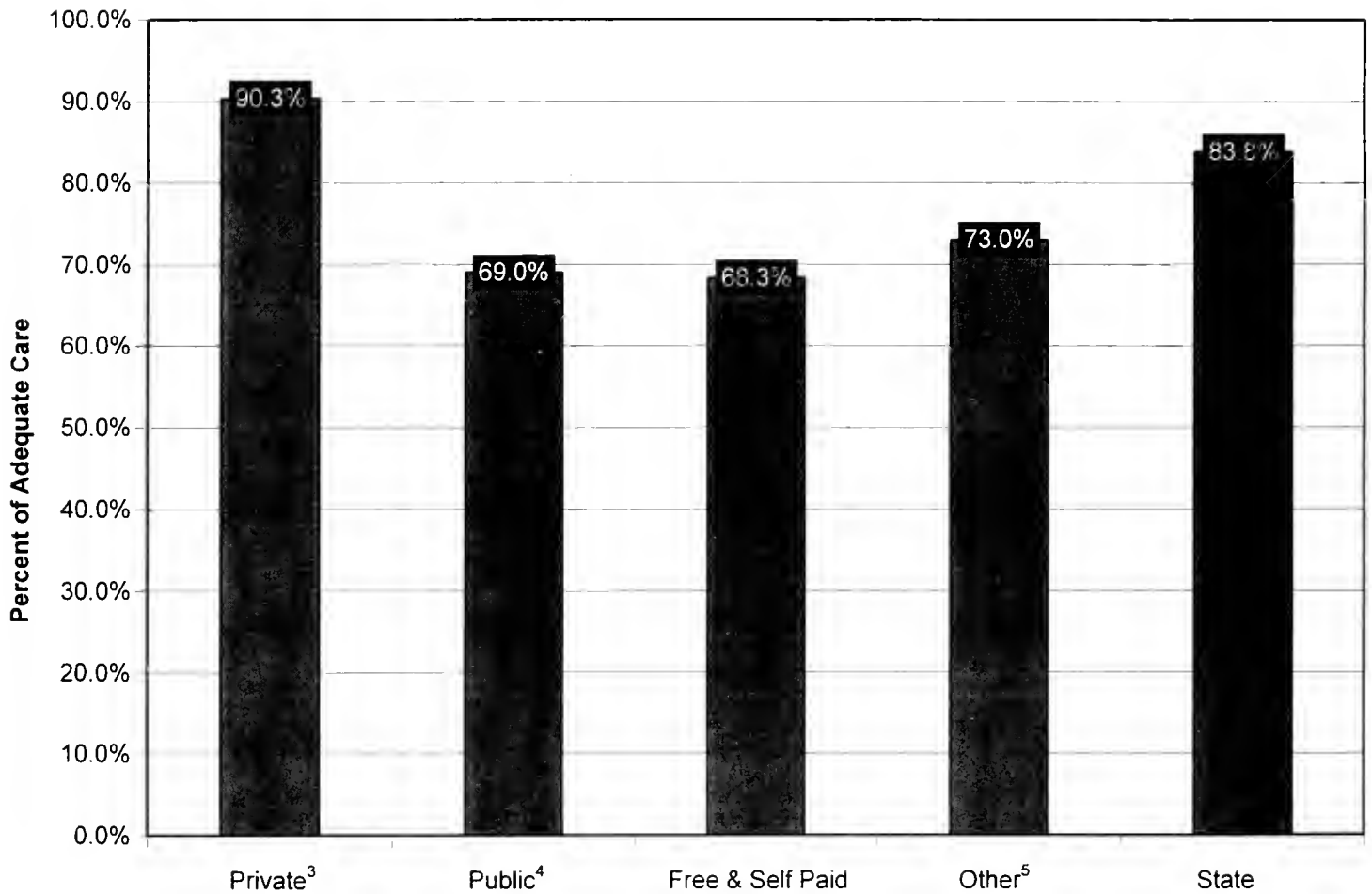


1. Calculations are based on births with known adequacy of prenatal care scores.

2. When calculating statistics which include data before June 1986, the race classifications do not include an ethnicity component; most Hispanics are included in the race category of white.

Figure B-5

**Adequacy of Prenatal Care¹
by Prenatal Care Source of Payment²
Massachusetts: 1993**



1. Percentages are based on births with known adequacy of prenatal care scores.

2. The source of payment for prenatal care is a self-reported item on the birth certificate. As with all such data, they are subject to the limitations of self-reported information and should be interpreted with the usual caution.

3. Private: Blue Cross/Blue Shield, Commercial Insurers and Health Maintenance Organizations.

4. Public: Medicaid, Medicare, Healthy Start and Other Government.

5. Other: Workers' Compensation and other.

Table B-7. Parity ¹ By Age of Mother, Massachusetts Resident Births: 1993												
Age of Mother		Total	1st	2nd	3rd	4th	5th	6th	7th	8th	≥ 9	Unknown
Total	# %	84,627 100.00 ²	36,183 42.76	28,343 33.49	12,943 15.29	4,481 5.30	1,497 1.77	542 0.64	225 0.27	96 0.11	63 0.07	254 0.30
10-14	# %	137 100.00	135 98.54	2 1.46	0 ** ³	0 **	0 **	0 **	0 **	0 **	0 **	0 **
15-19	# %	6,469 100.00	5,091 78.70	1,075 16.62	242 3.74	44 0.68	6 0.09	1 0.02	0 **	0 **	0 **	10 0.15
20-24	# %	14,679 100.00	7,595 51.74	4,574 31.16	1,778 12.11	515 3.51	143 0.97	36 0.25	11 0.07	3 0.02	0 **	24 0.16
25-29	# %	24,899 100.00	11,330 45.50	8,428 33.85	3,388 13.61	1,134 4.55	373 1.50	126 0.51	38 0.15	17 0.07	8 0.03	57 0.23
30-34	# %	25,865 100.00	8,714 33.69	9,906 38.30	4,791 18.52	1,582 6.12	500 1.93	186 0.72	74 0.29	32 0.12	14 0.05	66 0.26
35-39	# %	10,728 100.00	2,841 26.48	3,795 35.37	2,414 22.50	1,003 9.35	362 3.37	134 1.25	72 0.67	20 0.19	24 0.22	63 0.59
40-44	# %	1,775 100.00	464 26.14	550 30.99	315 17.75	195 10.99	107 6.03	55 3.10	27 1.52	21 1.18	13 0.73	28 1.58
≥ 45	# %	69 100.00	12 17.39	13 18.84	12 17.39	7 10.14	6 8.70	4 5.80	3 4.35	3 4.35	4 5.80	5 7.25
Unknown	# %	6 100.00	1 16.67	0 **	3 50.00	1 16.67	0 **	0 **	0 **	0 **	0 **	1 16.67

¹ The number of live births including this birth. ² Percents may not sum to 100.0 due to rounding. ³ Percentage less than 0.01%.

Table B-8. Number of Primary and Repeat Caesarean Sections by Age,
Massachusetts Resident Births: 1993

Age of Mother	Total Births	C-Section Rate Per 1,000 Live Births		Total Caesarean Deliveries	Primary Caesarean Deliveries	Repeat Caesarean Deliveries
Total	84,627 ¹	218.1	#	18,460	11,558	6,902
			%	100.0	62.6	37.4
< 15	137	160.6	#	22	22	0
			%	100.0	100.0	0.0
15-19	6,469	132.8	#	859	776	83
			%	100.0	90.3	9.7
20-24	14,679	171.7	#	2,520	1,814	706
			%	100.0	72.0	28.0
25-29	24,899	214.9	#	5,352	3,496	1,856
			%	100.0	65.3	34.7
30-34	25,865	240.8	#	6,228	3,540	2,688
			%	100.0	56.8	43.2
35-39	10,728	270.4	#	2,901	1,570	1,331
			%	100.0	54.1	45.9
40-44	1,775	311.5	#	553	324	229
			%	100.0	58.6	41.4
≥ 45	69	362.3	#	25	16	9
			%	100.0	64.0	36.0

¹ Total includes 6 women of unknown age.

Table B-9. Birthweight in Grams by Mother's Age, Number and Rate per Thousand Live Births, Massachusetts Resident Births: 1993

Mother's Age

Birthweight (in grams)	Total	<15	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	≥45	Unknown
Total	84,627	137	360	741	1,259	1,872	2,237	14,679	24,899	25,865	10,728	1,775	69	6
<500	101	0	2	3	3	4	5	21	26	23	12	2	0	0
Rate	1.2	0.0	5.6	4.0	2.4	2.1	2.2	1.4	1.0	0.9	1.1	1.1	0.0	0.0
500-999	350	2	4	3	9	9	12	53	78	110	60	10	0	0
Rate	4.1	14.6	11.1	4.0	7.1	4.8	5.4	3.6	3.1	4.3	5.6	5.6	0.0	0.0
1000-1499	511	3	4	8	11	16	15	87	133	141	78	15	0	0
Rate	6.0	21.9	11.1	10.8	8.7	8.5	6.7	5.9	5.3	5.4	7.3	8.4	0.0	0.0
VLBW ¹	962	5	10	14	23	29	32	161	237	274	150	27	0	0
Rate	11.4	36.5	27.8	18.9	18.3	15.5	14.3	11.0	9.5	10.6	14.0	15.2	0.0	0.0
1500-1999	1,059	4	9	17	21	24	34	165	296	286	165	38	0	0
Rate	12.5	29.2	25.0	22.9	16.7	12.8	15.2	11.2	11.9	11.1	15.4	21.4	0.0	0.0
2000-2499	3,181	4	22	49	68	115	90	630	819	886	417	75	6	0
Rate	37.6	29.2	61.1	66.1	54.0	61.4	40.2	42.9	32.9	34.3	38.9	42.3	87.0	0.0
LBW ²	5,202	13	41	80	112	168	156	956	1,352	1,446	732	140	6	0
Rate	61.5	94.9	113.9	108.0	89.0	89.7	69.7	65.1	54.3	55.9	68.2	78.9	87.0	0.0
2500-2999	12,439	29	93	165	276	389	458	2,467	3,476	3,349	1,457	264	16	0
Rate	147.0	211.7	258.3	222.7	219.2	207.8	204.7	168.1	139.6	129.5	135.8	148.7	231.9	0.0
3000-3499	30,141	65	131	288	496	719	866	5,650	8,872	8,881	3,568	584	19	2
Rate	356.2	474.5	363.9	388.7	394.0	384.1	387.1	384.9	356.3	343.4	332.6	329.0	275.4	333.3
3500-3999	26,312	23	83	156	288	466	566	4,221	7,946	8,575	3,434	532	18	4
Rate	310.9	167.9	230.6	210.5	228.8	248.9	253.0	287.6	319.1	331.5	320.1	299.7	260.9	666.7
4000-4499	8,741	5	10	46	73	107	167	1,159	2,702	3,010	1,249	207	6	0
Rate	103.3	36.5	27.8	62.1	58.0	57.2	74.7	79.0	108.5	116.4	116.4	116.6	87.0	0.0
4500-4999	1,450	1	2	2	2	16	15	185	441	499	239	38	3	0
Rate	17.1	7.3	5.6	2.7	7.1	8.5	6.7	12.6	17.7	19.3	22.3	21.4	43.5	0.0
≥5000	161	0	0	1	2	4	3	12	51	58	26	4	0	0
Rate	1.9	0.0	0.0	1.3	1.6	2.1	1.3	0.8	2.0	2.2	2.4	2.2	0.0	0.0
Unknown	181	1	0	3	3	3	6	29	59	47	23	6	1	0
Rate	2.1	7.3	0.0	4.0	2.4	1.6	2.7	2.0	2.4	1.8	2.1	3.4	14.5	0.0

¹ Very Low Birthweight: < 1,500 grams or 3.3 pounds. ² Low Birthweight: < 2,500 grams or 5.5 pounds.

Table B-10. Hospital Profiles, Massachusetts Occurrence Births: 1993

Hospital Name	Location	Occurrence Births	Birth Characteristics				Caesarean Births			
			% Low Birth Weight	% Public Payment for Delivery	% Adequate Prenatal Care	Total	%	Primary	Repeat	
State Total		85,885	6.1	26.9	83.8	18,460	21.5	11,558	6,902	
Addison Gilbert Hospital	Gloucester	236	3.8	30.9	87.7	69	29.2	43	26	
Anna Jaques Hospital	Newburyport	830	2.8	21.6	84.9	130	15.7	83	47	
Baystate Medical Cntr	Springfield	5,791	9.0	38.8	76.0	1,346	23.2	843	503	
Berkshire Medical Cntr	Pittsfield	1,117	5.3	23.9	77.1	247	22.1	148	99	
Beth Israel Hospital	Boston	5,316	7.6	21.7	86.1	1,193	22.4	840	353	
Beverly Hospital	Beverly	2,534	3.6	18.2	80.0	562	22.2	351	211	
Boston City Hospital	Boston	1,377	13.0	82.9	51.6	270	19.6	166	104	
Brigham and Women's Hospital	Boston	8,581	10.4	13.6	93.6	1,847	21.5	1,210	637	
Brockton Hospital	Brockton	1,356	5.4	35.3	71.0	308	22.7	191	117	
Burbank Hospital	Fitchburg	786	4.7	46.2	75.2	75	9.5	51	24	
Cambridge Hospital	Cambridge	814	3.3	78.1	64.4	111	13.6	70	41	
Cape Cod Hospital	Barnstable	1,142	3.7	32.0	81.4	266	23.3	141	125	
Charlton Memorial	Fall River	1,807	5.1	39.5	81.6	376	20.8	214	162	
Cooley-Dickinson Hospital	Northampton	1,101	2.5	21.5	90.6	186	16.9	131	55	
Emerson Hospital	Concord	1,587	2.6	8.9	82.7	352	22.2	220	132	
Fairview Hospital	Great Barrington	164	4.3	29.3	78.0	46	28.0	35	11	
Falmouth Hospital	Falmouth	564	2.5	30.4	74.3	116	20.6	70	46	
Franklin Medical Cntr	Greenfield	625	4.0	35.2	85.3	127	20.3	73	54	
Good Samaritan Medical Cntr ¹	Stoughton	1,431	4.0	38.0	61.8	310	21.7	198	112	
Hale	Haverhill	712	3.2	41.7	84.0	129	18.1	73	56	
Harrington Memorial Hospital	Southbridge	500	3.8	49.8	75.8	135	27.0	73	62	
Henry Heywood Memorial	Gardner	309	3.6	49.0	70.9	72	23.3	51	21	
Holy Family Hospital/Medical Cntr	Methuen	881	4.4	31.4	76.5	214	24.3	118	96	

¹ Name changed from Goddard Memorial Hospital on October 1, 1993.

Table B-10. Hospital Profiles, Massachusetts Occurrence Births: 1993

Birth Characteristics

Caesarean Births

Hospital Name	Location	Occurrence Births	% Low Birth Weight	% Public Payment for Delivery	% Adequate Prenatal Care	Total	%	Primary	Repeat
State Total		85,885	6.1	26.9	83.8	18,460	21.5	11,558	6,902
Holyoke Hospital ²	Holyoke	55	3.6	60.0	58.2	10	18.2	7	3
Jordan Hospital	Plymouth	881	2.8	30.5	82.6	201	22.8	131	70
Lawrence General Hospital	Lawrence	1,858	6.1	44.1	95.8	469	25.2	273	196
Leominster Hospital	Leominster	1,347	3.5	27.2	82.3	297	22.0	180	117
Lowell General Hospital	Lowell	2,379	4.5	37.5	81.8	373	15.7	210	163
Malden Hospital	Malden	1,339	3.9	33.0	78.9	370	27.6	228	142
Martha's Vineyard	Oak Bluffs	127	6.3	23.6	81.6	25	19.7	10	15
Mary Lane Hospital	Ware	212	5.7	39.6	78.3	54	25.5	37	17
Medical Cntr of Central Massachusetts	Worcester	4,034	10.1	27.8	93.3	793	19.7	481	312
Melrose/Wakefield	Melrose	1,319	4.2	13.7	93.9	349	26.5	180	169
Metrowest Medical Cntr--Framingham Union Campus	Framingham	2,326	3.6	17.7	95.3	553	23.8	358	195
Metrowest Medical Cntr--Leonard Morse	Natick	753	2.1	10.1	93.8	153	20.3	90	63
Milford-Whitinsville Regional	Milford	431	2.8	34.3	79.1	111	25.8	65	46
Morton Hospital & Medical Cntr	Taunton	671	4.6	30.0	85.8	223	33.2	128	95
Mount Auburn Hospital	Cambridge	1,811	3.1	21.9	84.4	345	19.1	242	103
Nantucket Cottage	Nantucket	80	1.3	17.5	87.5	14	17.5	10	4
New England Medical Cntr	Boston	1,882	26.2	32.3	86.0	567	30.1	390	177
New England Memorial Hospital	Stoneham	1,066	2.0	8.1	94.7	295	27.7	177	118
Newton-Wellesley Hospital	Newton	4,005	3.2	1.9	93.0	727	18.2	494	233
North Adams Regional Hospital	North Adams	409	3.2	35.5	86.3	79	19.3	50	29
North Shore Birthing Cntr	Beverly	94	0.0	10.6	84.0	0	0.0	0	0
North Shore Medical Cntr--Salem Hospital	Salem	2,067	4.4	37.8	85.5	483	23.4	315	168
Norwood Hospital	Norwood	1,054	2.8	9.9	98.5	232	22.0	127	105

² Holyoke Hospital became a maternity facility on August 17, 1993.

Table B-10. Hospital Profiles, Massachusetts Occurrence Births: 1993

Hospital Name	Location	Occurrence Births	Birth Characteristics				Caesarean Births			
			% Low Birth Weight	% Public Payment for Delivery	% Adequate Prenatal Care	Total	%	Primary	Repeat	
State Total		85,885	6.1	26.9	83.8	18,460	21.5	11,558	6,902	
Providence Hospital	Holyoke	1,149	3.5	52.2	60.4	135	11.7	70	65	
Quincy Hospital	Quincy	1,155	3.0	24.4	84.3	245	21.2	168	77	
South Shore Hospital	Weymouth	2,580	3.1	3.2	94.7	550	21.3	315	235	
St. Elizabeth's Medical Cntr	Boston	1,331	5.8	34.7	88.1	385	28.9	246	139	
St. Luke's Hospital	New Bedford	1,789	4.2	47.3	76.9	391	21.9	248	143	
St. Margaret's Hospital ³	Boston	711	13.5	50.7	77.3	181	25.5	97	84	
St. Vincent Hospital	Worcester	2,640	3.6	20.0	83.5	369	14.0	253	116	
Saints Memorial Medical Cntr	Lowell	523	4.4	33.5	68.3	112	21.4	77	35	
Sturdy Memorial Hospital	Attleboro	919	4.1	28.8	84.3	221	24.0	131	90	
Tobey Hospital	Wareham	420	2.9	33.8	91.2	79	18.8	49	30	
Waltham/Weston Hospital	Waltham	445	2.9	39.7	81.1	65	14.6	41	24	
Winchester Hospital	Winchester	2,101	3.9	10.3	65.3	516	24.6	286	230	
All Other Hospitals, At Home, En Route, Other, Unknown	Statewide	361	9.4	33.5	53.7	1	0.0	1	0	

³ The maternity facilities at St. Margaret's Hospital closed on July 17, 1993. Concurrent with this closing date, the "St. Margaret's Center for Women" opened at St. Elizabeth's Medical Center.

DEATHS

SECTION C

DEATHS

Massachusetts resident deaths increased from 1992 (53,804 deaths) to 1993 (55,557 deaths). The death rate per 1,000 population also increased from 8.9 in 1992 to 9.1 in 1993. As with live births, Massachusetts resident deaths include all deaths to Massachusetts residents regardless of the state in which they occurred. Most data presented in this section are resident data. Occurrence data are used only for medical examiner data.

DEATHS BY RACE

From 1992 to 1993, the number of deaths by race remained relatively constant with white residents comprising 95.7% of total deaths in Massachusetts.

The collection procedures for race information on death certificates, and the subsequent completeness of the information, is substantially different from that collected on birth certificates. Race and ethnicity information with natality data is collected as part of the confidential, statistical portion of the birth record, which is not required for legal registration. This may result in problems with parental refusals to provide the information or other respondent problems. Race and Hispanic ethnicity information on death certificates, as with all the other information collected as part of the death certificate registration process, is part of the mandatory, legal record. In virtually all cases with information on the death record, missing or unknown information is the result of a case in which the decedent is badly decomposed or otherwise unidentifiable, rather than any traditional reasons for missing or unknown information on a data collection instrument. Prior to 1989, only a race question was included on death certificates. A separate item on Hispanic origin was added to the death record beginning January 1, 1989. This item asks whether the decedent was of Hispanic origin. If answered affirmatively, then specific Hispanic origin must be indicated (e.g., Puerto Rican, Dominican, Cuban, etc.).

DEATHS BY AGE

Persons 75 years of age or older accounted for 57.3% of deaths. The percent of deaths to residents in this age group vary widely by race and sex.

SEX	RACE	% OF DEATHS UNDER AGE 75	% OF DEATHS 75 YEARS AND OLDER
MALE	WHITE	52.5	47.5
	BLACK	79.0	21.0
	TOTAL	53.8	46.2
FEMALE	WHITE	31.6	68.4
	BLACK	61.6	38.4
	TOTAL	32.6	67.4
TOTAL	WHITE	41.5	58.5
	BLACK	71.4	28.6
	TOTAL	42.7	57.3

DEATHS BY PLACE OF OCCURRENCE

Between 1992 and 1993, there was little variation in the sites where deaths occurred. The data are presented below:

SITE	% OF DEATHS 1993	% OF DEATHS 1992
HOSPITAL	54.4	57.2
AT HOME	19.9	19.6
NURSING OR REST HOME	21.8	19.2
EN ROUTE TO HOSPITAL OR DEAD ON ARRIVAL	2.7	2.9
UNKNOWN ¹	1.2	1.1
TOTAL	100.0	100.0

DEATHS BY CAUSE

Cause of death statistics in this report are based on the Ninth Revision of the International Classification of Diseases (ICD-9). The methodology of coding cause of death from death certificates is consistent nationally, using the Automated Classification of Medical Entities (ACME), developed by the National Center for Health Statistics (NCHS). The ACME system requires every disease or condition mentioned on the record to be coded. The underlying cause is then selected by a computer program which incorporates the ICD-9 rules and conventions. Cause of death information in this report is based on underlying cause, except where otherwise noted.

In this section, three tables (C-5, C-6, and C-7) present data based on multiple conditions rather than underlying cause data. These tables, extending the utility of mortality data, are presented to illustrate the use of multiple cause data. This is particularly true when utilizing mortality data as a method of surveillance. For example, in 1993 there were 17,585 deaths resulting from heart disease as an underlying cause of death. However, an additional 12,125 deaths occurred in which heart disease was not the underlying cause but included heart disease as a mentioned condition, thus increasing the utilization of the mortality file as a surveillance data base for heart disease.

Table C-7 demonstrates the ability of multiple cause data to enhance the function of mortality data as a morbidity tool in cases of diseases that are not traditional underlying causes of death. For example, 1,334 deaths had diabetes listed as an underlying cause, but an additional 3,225 certificates had diabetes listed as a mentioned condition, thus increasing the ability to determine the prevalence of diabetes in the population.

¹ Unknown includes prison or other institutions and all other places.

The leading causes of death differ by race. In 1993, heart disease, cancer, stroke, pneumonia and influenza, and chronic obstructive pulmonary disease rank as the five leading causes of death among white Massachusetts residents. However, the five leading causes of death among black Massachusetts residents in 1993 were: heart disease, cancer, AIDS, stroke, and homicide and legal intervention.

RANK	WHITE			BLACK		
	CAUSE	#	%	CAUSE	#	%
1	HEART DISEASE	17,040	32.0	HEART DISEASE	448	22.8
2	CANCER	13,435	25.3	CANCER	440	22.4
3	STROKE	3,244	6.1	AIDS	160	8.1
4	PNEUMONIA & INFLUENZA	2,708	5.1	STROKE	102	5.2
5	COPD ²	2,272	4.3	HOMICIDE & LEGAL INTERVENTION	89	4.5
6	DIABETES	1,240	2.3	DIABETES	87	4.4
7	UNINTENTIONAL INJURY ³	757	1.4	PERINATAL CONDITIONS	60	3.0
8	NEPHRITIS	743	1.4	PNEUMONIA & INFLUENZA	52	2.6
9	OTHER DISEASES OF THE ARTERIES	685	1.3	COPD	39	2.0
10	SEPTICEMIA	666	1.3	SEPTICEMIA	38	1.9
	ALL OTHER CAUSES ⁴	10,392	19.5	ALL OTHER CAUSES	454	23.1
	TOTAL	53,182	100.0	TOTAL	1,969	100.0

ACQUIRED IMMUNE DEFICIENCY SYNDROME (AIDS)

The Ninth Revision of the International Classification of Diseases was developed before the identification of AIDS. Classification of this disease and related diseases has evolved since 1981. The deaths presented in Table C-10A and Table C-10B were coded by using the most current schedule, which began with 1987 data. Comparison data prior to 1987 are not available.

² Chronic Obstructive Pulmonary Disease.

³ Excludes motor vehicle injuries.

⁴ All Other Causes includes intentional and motor vehicle injuries and all other causes not specifically mentioned above.

DEATHS CERTIFIED BY MEDICAL EXAMINERS

The total number of deaths certified by medical examiners decreased from 4,589 in 1992 to 4,491 in 1993. Of the deaths certified by medical examiners, 53.6% were reported as a result of natural causes. The percentage of deaths due to natural causes (i.e., non-injury related causes) certified by medical examiners varies widely by county, from a high of 81.8% in Nantucket County to a low of 42.4% in Worcester County. Hampden County had the greatest percentage of deaths (22.8%) that were referred to medical examiners, but with the certification retained by the attending physician, while the highest number of such deaths was in Middlesex County with 2,216 deaths.

DEFINITIONS IMPORTANT FOR THIS SECTION INCLUDE:

AGE-ADJUSTED RATE

A procedure for adjusting rates, designed to minimize the effects of differences in age distribution when comparing rates for different populations. This procedure is accomplished by the computational process known as age standardization, whereby mortality statistics are adjusted to a reference population. For this publication, the reference population is the 1940 U.S. population, the same as used by the National Center for Health Statistics. The result of the process is a summary index that can be used to compare rates of different populations throughout the nation and over time.

CAUSE OF DEATH

The disease or injury that initiated the series of events leading to death, or the circumstances of the unintentional or intentional injury that resulted in the death.

DEATH CERTIFICATE

A vital record signed by a licensed physician that includes cause of death, decedent's name, sex, birth date, place of residence, and place of occurrence.

INTERNATIONAL CLASSIFICATION OF DISEASES, NINTH REVISION

The International Classification of Disease (ICD) classifies mortality information for statistical purposes. The ICD was first used in 1900 and has since been revised about every 10 years. The Ninth Revision, published in 1977, is used to code mortality data beginning with 1979.

MISER

The Massachusetts Institute for Social and Economic Research. This research institute, located at the University of Massachusetts in Amherst, produces the official population estimates and projections for the Department of Public Health.

OCCURRENCE DEATH

Occurrence deaths include all deaths that occur within the state, including deaths of non-residents. An interstate exchange agreement among the 50 states and Canada provides for exchanges of copies of birth and death records. These records are used for statistical purposes only, and allow each state or province to track the births and deaths of residents.

RACE

For death records, race is provided by the death record informant (for example, spouse or next of kin).

RESIDENT DEATH

The death of a person whose usual place of residence or permanent address (as reported by the informant) is in one of the 351 cities or towns of Massachusetts, regardless of where the death took place. Unless otherwise noted, all data in this publication are resident data. An interstate exchange agreement among the 50 states and Canada provides for exchange of copies of birth and death records. These records are used for statistical purposes only, and allow each state or province to track the births and deaths of residents.

UNDERLYING CAUSE OF DEATH

The underlying cause of death is: 1.) the disease or injury that initiated the series of events leading to death, or 2.) the circumstances of the unintentional or intentional injury that resulted in the death. See Death Certificate.

RATES IMPORTANT FOR THIS SECTION INCLUDE:

AGE-SPECIFIC DEATH RATE	$\frac{\text{Number of Resident Deaths in Specific Age Group}}{\text{Total Population of Specific Age Group}} \times 100,000$
CAUSE-SPECIFIC DEATH RATE	$\frac{\text{Number of Resident Deaths for a Specific Cause}}{\text{Total Population}} \times 100,000$
CRUDE DEATH RATE	$\frac{\text{Number of Resident Deaths In A Year}}{\text{Total Population}} \times 1,000$

Figure C-1

Every day in 1993, residents of Massachusetts experienced an average of:

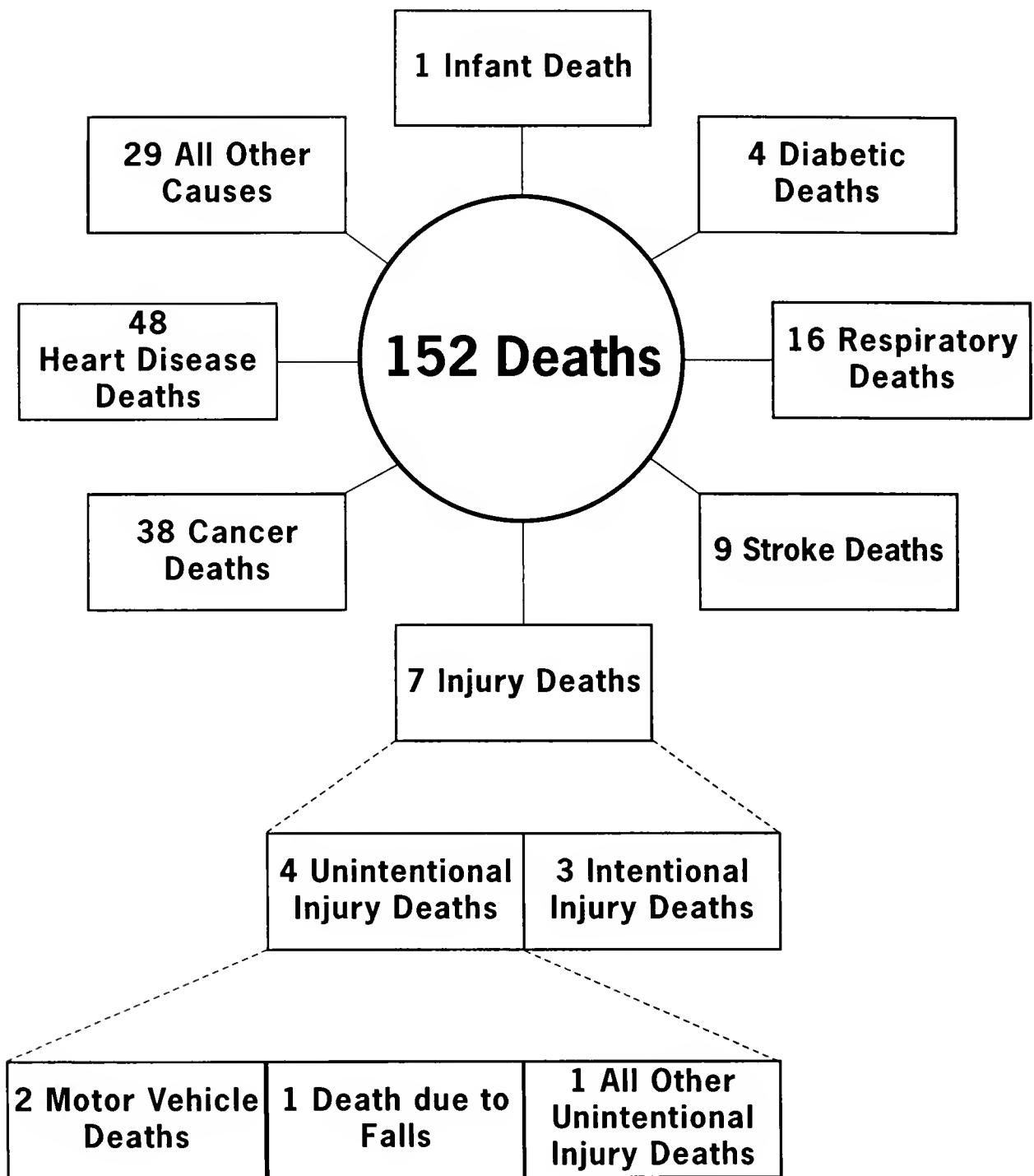


Figure C-2

**Five Leading Causes of Death
Massachusetts: 1993**

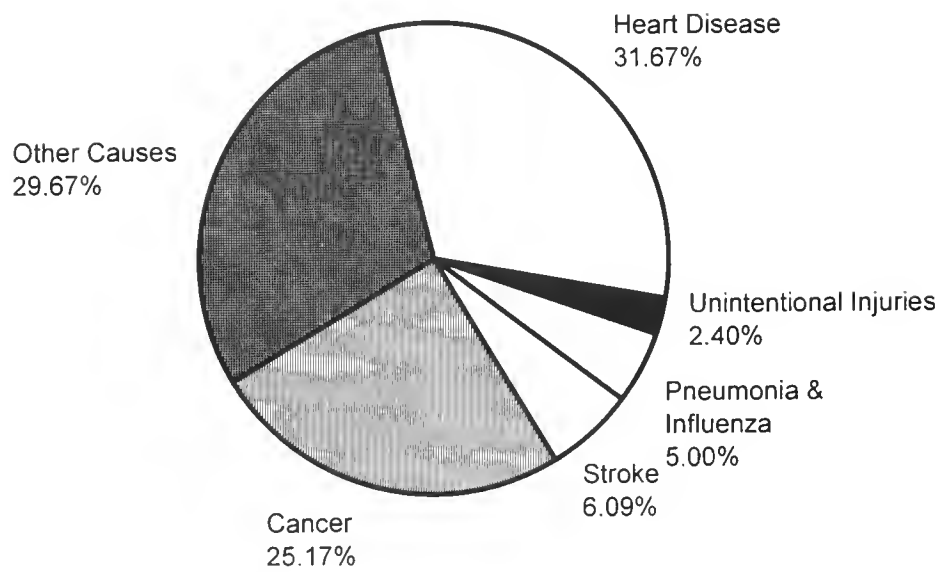


Table C-1. Trends in Mortality Characteristics, Massachusetts Resident Deaths: 1980, 1985, 1989, 1990, 1991, 1992, 1993

<u>Year</u>	<u>1980</u>	<u>1985</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
Resident Deaths	#	54,934	55,597	53,748	53,008	53,010	55,557
Age-Adjusted Death Rate^{1,2}		550.7	523.7	489.9	471.7	461.5	474.5
Race of Decedent							
White	#	53,251	53,580	51,608	50,779	50,815	53,182
	%	96.9	96.4	96.0	95.8	95.8	95.7
Black	#	1,508	1,779	1,850	1,879	1,887	1,969
	%	2.8	3.2	3.4	3.5	3.6	3.5
Other	#	141	214	290	341	303	394
	%	0.3	0.4	0.6	0.6	0.5	0.7
Unknown	#	34	24	0	9	5	12
	%	--	--	--	--	--	--
Age of Decedent³							
< 1 year	#	748	746	697	649	576	523
1-4 years	#	127	112	106	93	81	123
5-19 years	#	547	466	370	375	334	313
20-44 years	#	2,680	2,734	3,183	3,005	3,242	3,322
45-64 years	#	10,504	9,691	8,532	8,138	7,877	7,920
65-74 years	#	12,411	12,790	12,153	11,707	11,415	11,509
75-84 years	#	15,506	15,515	15,439	15,553	15,506	16,346
85 + years	#	12,409	13,538	13,268	13,482	13,979	15,494

¹ The data are age-adjusted by the direct method using 1940 U.S. Census data. ² Rates are expressed as deaths per 100,000 residents. ³ Column sums may not equal totals, because the age of some decedents was unknown.

Table C-2. Five Leading Causes of Death, Age-Adjusted Rates¹, Massachusetts and United States: 1980-1993

UNDERLYING CAUSE OF DEATH

YEAR	Heart Disease (390-398, 402, 404-429)		Cancer (140-208)		Stroke (430-438)		Pneumonia/ Influenza (480-487)		Unintentional Injuries (E800-E949)		All Causes	
	MA	U.S.	MA	U.S.	MA	U.S.	MA	U.S.	MA	U.S.	MA	U.S.
1980	Rate 197.7 39.9	202.0 38.2	136.6 22.2	132.8 20.9	34.2 7.9	40.8 8.6	16.7 4.0	12.9 2.7	30.4 3.9	42.3 5.3	550.7	585.8
1981	Rate 197.1 36.5	195.0 38.1	136.6 21.3	131.6 21.3	34.0 7.0	38.1 8.3	16.4 3.4	12.3 2.7	29.1 3.5	39.8 5.1	543.2	568.2
1982	Rate 196.5 36.5	190.5 38.3	137.6 21.7	132.6 22.0	31.7 6.6	35.8 8.0	13.8 2.9	10.9 2.5	25.2 3.1	36.6 4.8	536.2	553.2
1983	Rate 193.1 36.4	188.8 38.2	140.0 22.2	132.5 21.9	30.2 6.4	34.4 7.7	14.7 3.3	11.8 2.8	26.4 3.2	34.9 4.6	539.4	550.5
1984	Rate 192.9 36.6	183.6 37.4	140.7 22.3	132.6 22.1	30.6 6.6	33.4 7.6	14.8 3.3	12.2 2.9	25.7 3.2	35.0 4.6	542.7	545.9
1985	Rate 178.7 37.9	180.5 37.2	140.2 23.5	133.6 22.0	27.3 6.8	32.3 7.3	14.7 4.0	13.4 3.2	25.2 3.4	34.7 4.5	523.7	546.1
1986	Rate 172.3 37.2	175.0 36.4	137.7 23.4	133.2 22.3	27.0 6.7	31.0 7.1	16.0 4.5	13.5 3.3	24.8 3.3	35.2 4.5	516.2	541.7
1987	Rate 165.8 36.2	169.9 35.9	139.0 23.9	133.1 22.4	26.5 6.8	30.1 7.0	15.7 4.4	13.2 3.3	23.2 3.1	34.6 4.5	509.6	535.5
1988	Rate 164.1 35.8	166.7 35.3	138.6 23.3	133.3 22.5	26.0 6.6	29.8 6.6	16.0 4.5	14.2 3.6	23.1 3.1	35.1 4.5	513.7	536.3
1989	Rate 142.4 33.1	155.9 34.1	140.2 25.3	133.7 23.1	23.8 6.4	28.5 6.8	13.5 4.1	13.3 3.5	21.1 3.0	33.5 4.4	489.9	524.1
1990	Rate 138.2 33.4	150.3 33.5	136.7 25.3	133.0 23.4	22.5 6.2	27.6 6.7	14.2 4.3	13.5 3.6	19.4 2.9	32.7 4.3	471.7	515.1
1991	Rate 130.7 32.2	146.1 33.2	137.1 26.0	132.6 23.8	21.1 6.2	26.5 6.6	14.1 4.5	12.6 3.5	18.0 2.7	31.7 4.2	461.5	507.9
1992	Rate 128.5 31.7	144.5 33.1	139.6 26.3	133.2 23.9	21.1 6.2	26.1 6.6	13.6 4.5	12.7 3.5	15.9 2.4	29.2 4.0	463.2	504.9
1993	Rate ² 132.4 31.7	144.7 32.6	138.2 25.2	133.2 23.4	21.7 6.1	26.4 6.6	16.3 5.0	13.2 3.6	16.2 2.4	29.6 3.9	474.5	514.0

¹ Age-adjusted rates per 100,000 residents in specified group. ² Source of 1993 U.S. data: "Annual Summary of Births, Marriages, Divorces, and Deaths: United States, 1993", Monthly Vital Statistics Report, Provisional Data from the Centers for Disease Control and Prevention/National Center for Health Statistics, U.S. Department of Health and Human Services, Vol. 42, No. 13 (October 11, 1994).

Table C-3. Leading Causes of Death by Age, Massachusetts Residents: 1993

Age	Cause of Death	ICD-9 Code	Deaths
< 1 year	Certain conditions originating in the perinatal period	760-779	274
	Congenital anomalies	740-759	102
	Sudden infant death syndrome (SIDS)	798.0	61
	Total Deaths		523
1-4 years	Congenital anomalies	740-759	21
	Unintentional injuries, excluding motor vehicle injuries	E800-E807, E826-E949	20
	Cancer	140-208	11
	Motor vehicle-related injuries	E810-E825	9
	Total Deaths		123
5-14 years	Motor vehicle-related injuries	E810-E825	22
	Cancer	140-208	18
	Unintentional injuries, excluding motor vehicle injuries	E800-E807, E826-E949	18
	Homicide and legal intervention	E960-E969	6
	Total Deaths		116
15-24 years	Motor vehicle-related injuries	E810-E825	133
	Homicide and legal intervention	E960-E969	79
	Unintentional injuries, excluding motor vehicle injuries	E800-E807, E826-E949	67
	Suicide	E950-E959	57
	Total Deaths		464
25-44 years	AIDS and HIV-related diseases	042-044	593
	Cancer	140-208	505
	Heart disease	390-398, 402, 404-429	360
	Suicide	E950-E959	201
	Total Deaths		3,055
45-64 years	Cancer	140-208	3,182
	Heart disease	390-398, 402, 404-429	2,145
	Chronic obstructive pulmonary disease (COPD)	490-496	228
	Stroke	430-438	226
	Total Deaths		7,920
65-74 years	Cancer	140-208	4,178
	Heart disease	390-398, 402, 404-429	3,534
	Stroke	430-438	481
	Pneumonia and influenza	480-487	306
	Total Deaths		11,509
75-84 years	Heart disease	390-398, 402, 404-429	5,497
	Cancer	140-208	4,140
	Stroke	430-438	1,177
	Pneumonia and influenza	480-487	851
	Total Deaths		16,346
85 + years	Heart disease	390-398, 402, 404-429	6,011
	Cancer	140-208	1,904
	Stroke	430-438	1,426
	Pneumonia and influenza	480-487	1,413
	Total Deaths		15,494

Table C-4. Resident Deaths by Age, Sex and Race, Massachusetts Residents: 1993

AGE	TOTAL			WHITE			BLACK			OTHER & UNKNOWN		
	TOTAL ¹	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
TOTAL	55,557	26,448	29,109	53,182	25,111	28,071	1,969	1,114	855	406	223	183
0-4	646	353	293	525	283	242	104	61	43	17	9	8
5-9	46	21	25	37	16	21	9	5	4	0	0	0
10-14	70	42	28	55	35	20	10	6	4	5	1	4
15-19	197	135	62	158	107	51	32	24	8	7	4	3
20-24	267	196	71	224	158	66	35	32	3	8	6	2
25-29	411	287	124	355	247	108	48	32	16	8	8	0
30-34	701	520	181	603	451	152	91	64	27	7	5	2
35-39	895	666	229	767	574	193	118	85	33	10	7	3
40-44	1,048	691	357	916	602	314	120	79	41	12	10	2
45-49	1,209	770	439	1,105	706	399	89	57	32	15	7	8
50-54	1,471	908	563	1,351	830	521	102	67	35	18	11	7
55-59	1,954	1,181	773	1,809	1,084	725	123	83	40	22	14	8
60-64	3,286	2,003	1,283	3,096	1,891	1,205	149	86	63	41	26	15
65-69	4,930	2,813	2,117	4,717	2,700	2,017	179	92	87	34	21	13
70-74	6,579	3,641	2,938	6,337	3,503	2,834	197	107	90	45	31	14
75-79	8,123	4,159	3,964	7,879	4,039	3,840	192	91	101	52	29	23
80-84	8,223	3,574	4,649	8,045	3,486	4,559	141	68	73	37	20	17
85-89	7,647	2,584	5,063	7,492	2,537	4,955	118	40	78	37	7	30
90-94	5,124	1,405	3,719	5,030	1,375	3,655	71	24	47	23	6	17
95-99	2,219	425	1,794	2,185	416	1,769	28	8	20	6	1	5
≥ 100	504	69	435	490	66	424	12	3	9	2	0	2

¹ The total includes 7 deaths of unknown age--five white males, one white female, and one black female.

Table C-5. Deaths by Underlying Cause and Mentioned Conditions, Massachusetts Residents: 1993

Underlying Cause	Total Deaths ²	Mentioned Conditions ¹													Ratio of Mentions to Deaths	
		1	2	3	4	5	6	7	8	9	10	11	12	13		Tot 1-13
TOTAL	55,557	19,041	4,593	41,384	6,313	1,267	6,240	5,241	3,155	1,015	563	2,046	724	48,738	140,320	2.53
1. Cancer (140-208)	13,981	16,953	527	2,912	326	30	753	815	414	89	0	174	1	6,523	29,517	2.11
2. Diabetes Mellitus (250)	1,334	49	1,368	1,470	214	53	78	47	39	15	0	24	0	1,104	4,461	3.34
3. Heart Disease (390-398, 402, 404-429)	17,585	952	1,570	29,259	1,265	393	818	1,264	634	105	3	376	2	9,055	45,696	2.60
4. Stroke (430-438)	3,373	149	255	1,024	3,589	236	263	112	247	12	0	112	0	2,268	8,267	2.45
5. Atherosclerosis (440)	385	21	29	176	0	385	21	19	4	2	0	10	0	198	865	2.25
6. Pneumonia & Influenza (480-487)	2,776	216	157	1,014	259	18	2,776	184	69	24	1	26	0	2,277	7,021	2.53
7. COPD ³ (490-496)	2,324	151	104	1,073	86	20	516	2,339	133	20	0	63	0	1,928	6,433	2.77
8. Other Respiratory Disease (460-466, 470-478, 500-508, 510-519)	819	58	48	347	23	2	36	44	876	3	0	48	0	764	2,249	2.75
9. Chronic Liver Disease & Cirrhosis (571)	586	25	35	114	11	1	27	18	26	593	0	12	0	776	1,638	2.80
10. Motor Vehicle Injuries (E810-E825)	549	1	5	29	2	1	1	1	4	0	556	4	0	748	1,352	2.46
11. Other Injuries (E800-E809, E826-E949)	788	25	29	257	31	4	26	29	46	21	0	820	0	1,521	2,809	3.56
12. Suicide & Homicide (E950-E969)	712	2	0	6	0	0	3	1	3	0	0	1	718	935	1,669	2.34
13. All Other Causes	10,345	439	466	3,703	507	124	922	368	660	131	3	376	3	20,641	28,343	2.74

¹ The numbers in the Mentioned Conditions columns refer to the causes with the same numbers in the Underlying Cause column, i.e., column #1 under Mentioned Conditions is the number of mentions of cancer.

² Total Deaths by Underlying Cause. ³ Chronic Obstructive Pulmonary Disease.

Table C-6. Cancer Deaths by Underlying Cause and Mentioned Conditions, Massachusetts Residents: 1993

Mentioned Conditions	Underlying Cause of Cancer						
	Total	Digestive Organs & Peritoneum (150-159)	Respiratory & Intrathoracic Organs (160-165)	Bone, Skin, Connective Tissue & Breast (170-175)	Genitourinary Organs (179-189)	Lymphatic & Haematopoietic Tissue (200-208)	All Other Malignant Neoplasms
Total Mentioned Conditions	29,517	7,003	7,782	3,335	4,514	3,045	3,838
Mean Number of Mentioned Conditions Per Record	2.11	2.03	2.07	2.00	2.19	2.28	2.24
Deaths	13,981	3,453	3,754	1,664	2,065	1,333	1,712
1. Any Cancer (140-208)	16,953	4,192	4,487	2,104	2,531	1,462	2,177
2. Diabetes Mellitus (250)	527	143	131	57	90	50	56
3. Heart Disease (390-398, 402, 404-429)	2,912	692	739	290	527	326	338
4. Stroke (430-438)	326	67	74	37	51	55	42
5. Atherosclerosis (440)	30	8	6	4	5	3	4
6. Pneumonia/Influenza (480-487)	753	92	292	54	67	139	109
7. COPD ¹ (490-496)	815	114	468	38	81	45	69
8. Other Respiratory Disease (460-466, 470-478, 500-508, 510-519)	414	64	147	47	48	35	73
9. Chronic Liver Disease & Cirrhosis (571)	89	46	8	3	9	4	19
10. Unintentional Injuries (E800-E949)	175	43	53	13	25	24	17
11. All Other Causes	6,523	1,542	1,377	688	1,080	902	934
¹ Chronic Obstructive Pulmonary Disease							

¹ Chronic Obstructive Pulmonary Disease

**Table C-7. Atherosclerosis, Hypertensive Disease and Diabetes,
Underlying Cause and Mentioned Conditions by Age Group and Sex,**

Massachusetts Resident Deaths: 1993

Age	Sex	# of Deaths	Atherosclerosis (440)			Hypertensive Disease (401-405)			Diabetes Mellitus (250)		
			Under-lying Cause	Mentioned Conditions	Total % of Deaths	Under-lying Cause	Mentioned Conditions	Total % of Deaths	Under-lying Cause	Mentioned Conditions	Total % of Deaths
	TOTAL ¹	55,557	385	882	<u>1,267</u> 2.3	612	3,290	<u>3,902</u> 7.0	1,334	3,225	<u>4,559</u> 8.2
	MALE	26,448	140	373	<u>513</u> 1.9	207	1,234	<u>1,441</u> 5.4	573	1,500	<u>2,073</u> 7.8
	FEMALE	29,109	245	509	<u>754</u> 2.6	405	2,056	<u>2,461</u> 8.5	761	1,725	<u>2,486</u> 8.5
0-39	Total	3,233	0	1	<u>1</u> .02	8	8	<u>16</u> 0.5	25	23	<u>48</u> 1.5
	Male	2,220	0	1	<u>1</u> .02	6	4	<u>10</u> 0.5	13	11	<u>24</u> 1.1
	Female	1,013	0	0	<u>0</u> .0	2	4	<u>6</u> 0.6	12	12	<u>24</u> 2.4
40-49	Total	2,257	2	9	<u>11</u> 0.5	22	69	<u>91</u> 4.0	51	52	<u>103</u> 4.6
	Male	1,461	0	8	<u>8</u> 0.5	16	48	<u>64</u> 4.4	25	31	<u>56</u> 3.8
	Female	796	2	1	<u>3</u> 0.4	6	21	<u>27</u> 3.4	26	21	<u>47</u> 5.9
50-59	Total	3,425	3	23	<u>26</u> 0.8	34	148	<u>182</u> 5.3	82	173	<u>255</u> 7.4
	Male	2,089	3	16	<u>19</u> 0.9	24	94	<u>118</u> 5.6	45	115	<u>160</u> 7.7
	Female	1,336	0	7	<u>7</u> 0.5	10	54	<u>64</u> 4.8	37	58	<u>95</u> 7.1
60-69	Total	8,216	27	97	<u>124</u> 1.5	70	475	<u>545</u> 6.6	226	546	<u>772</u> 9.4
	Male	4,816	19	65	<u>84</u> 1.7	38	242	<u>280</u> 5.8	105	297	<u>402</u> 8.3
	Female	3,400	8	32	<u>40</u> 1.2	32	233	<u>265</u> 7.8	121	249	<u>370</u> 10.9
70-79	Total	14,702	67	231	<u>298</u> 2.0	145	995	<u>1,140</u> 7.8	426	1,155	<u>1,581</u> 10.8
	Male	7,800	40	126	<u>166</u> 2.1	57	463	<u>520</u> 6.7	196	586	<u>782</u> 10.0
	Female	6,902	27	105	<u>132</u> 1.9	88	532	<u>620</u> 9.0	230	569	<u>799</u> 11.6
≥ 80	Total	23,717	286	521	<u>807</u> 3.4	333	1,595	<u>1,928</u> 8.1	524	1,276	<u>1,800</u> 7.6
	Male	8,057	78	157	<u>235</u> 2.9	66	383	<u>449</u> 5.6	189	460	<u>649</u> 8.1
	Female	15,660	208	364	<u>572</u> 3.7	267	1,212	<u>1,479</u> 9.4	335	816	<u>1,151</u> 7.3

¹ Total includes 5 male and 2 female deaths of unknown age. ² **Indicates percentage less than 0.1.

Table C-8. Suicides by Method, Sex, and Age, Massachusetts Resident Deaths: 1993

UNDERLYING CAUSE	ICD-9 Code		Age									
			TOTAL	10-14	15-19	20-29	30-39	40-49	50-59	60-69	70-79	≥ 80
All Suicides	E950-E959	M	349	6	17	68	88	66	39	28	28	9
		F	115	1	5	17	21	30	14	16	7	4
		T	464	7	22	85	109	96	53	44	35	13
		%	100.0 ¹	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Poisoning by solid or liquid substances	E950	M	34	0	2	7	11	6	4	3	1	0
		F	53	0	2	7	12	13	8	6	3	2
		T	87	0	4	14	23	19	12	9	4	2
		%	18.8	0.0	18.2	16.5	21.1	19.8	22.6	20.5	11.4	15.4
Poisoning by gases in domestic use	E951	M	1	0	0	0	0	0	0	1	0	0
		F	0	0	0	0	0	0	0	0	0	0
		T	1	0	0	0	0	0	0	1	0	0
		%	0.2	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0
Poisoning by motor vehicle exhaust gas	E952	M	30	0	1	6	11	4	4	2	1	1
		F	10	0	0	1	2	3	2	1	1	0
		T	40	0	1	7	13	7	6	3	2	1
		%	8.6	0.0	4.5	8.2	11.9	7.3	11.3	6.8	5.7	7.7
Hanging, strangulation and suffocation	E953	M	110	5	4	25	29	23	6	9	8	1
		F	27	1	3	5	2	5	2	6	2	1
		T	137	6	7	30	31	28	8	15	10	2
		%	29.5	85.7	31.8	35.3	28.4	29.2	15.1	34.1	28.6	15.4
Submersion (drowning)	E954	M	7	0	0	1	1	1	3	1	0	0
		F	3	0	0	1	1	0	0	0	0	1
		T	10	0	0	2	2	1	3	1	0	1
		%	2.2	0.0	0.0	2.4	1.8	1.0	5.7	2.3	0.0	7.7
Firearms and explosives	E955	M	131	1	9	23	28	22	18	9	14	7
		F	10	0	0	1	3	6	0	0	0	0
		T	141	1	9	24	31	28	18	9	14	7
		%	30.4	14.3	40.9	28.2	28.4	29.2	34.0	20.5	40.0	53.8
Cutting and piercing instruments	E956	M	12	0	0	0	5	4	0	1	2	0
		F	1	0	0	0	0	1	0	0	0	0
		T	13	0	0	0	5	5	0	1	2	0
		%	2.8	0.0	0.0	0.0	4.6	5.2	0.0	2.3	5.7	0.0
Jumping from high places	E957	M	14	0	1	5	2	1	3	1	1	0
		F	7	0	0	1	1	1	2	1	1	0
		T	21	0	1	6	3	2	5	2	2	0
		%	4.5	0.0	4.5	7.1	2.8	2.1	9.4	4.5	5.7	0.0
Other and unspecified means	E958	M	9	0	0	1	1	5	1	0	1	0
		F	4	0	0	1	0	1	0	2	0	0
		T	13	0	0	2	1	6	1	2	1	0
		%	2.8	0.0	0.0	2.4	0.9	6.2	1.9	4.5	2.9	0.0
Late effects of self-inflicted injury	E959	M	1	0	0	0	0	0	0	1	0	0
		F	0	0	0	0	0	0	0	0	0	0
		T	1	0	0	0	0	0	0	1	0	0
		%	0.2	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0

¹ Percents may not sum to 100.0 due to rounding.

Table C-9. Motor Vehicle Deaths by Type, Massachusetts Residents: 1993

UNDERLYING CAUSE	ICD-9 Code		Decedent							
			TOTAL	Driver	Passenger	Motor-cyclist	Passenger, Motorcycle	Pedestrian	Pedal Cyclist	Other & Unspec.
All Motor Vehicle Deaths	E810-E825	M	364	156	46	31	2	64	12	53
		F	185	69	52	0	3	39	2	20
		T	549	225	98	31	5	103	14	73
		%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Collision with train	E810	M	1	1	0	0	0	0	0	0
		F	0	0	0	0	0	0	0	0
		T	1	1	0	0	0	0	0	0
		%	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Involving re-entrant collision with another motor vehicle	E811	M	1	1	0	0	0	0	0	0
		F	0	0	0	0	0	0	0	0
		T	1	1	0	0	0	0	0	0
		%	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Collision with another motor vehicle	E812	M	109	64	21	12	2	0	0	10
		F	64	35	25	0	0	0	0	4
		T	173	99	46	12	2	0	0	14
		%	31.5	44.0	46.9	38.7	40.0	0.0	0.0	19.2
Collision with another vehicle	E813	M	11	0	0	0	0	0	11	0
		F	2	0	0	0	0	0	2	0
		T	13	0	0	0	0	0	13	0
		%	2.4	0.0	0.0	0.0	0.0	0.0	92.9	0.0
Motor vehicle with pedestrian	E814	M	64	0	0	0	0	64	0	0
		F	39	0	0	0	0	39	0	0
		T	103	0	0	0	0	103	0	0
		%	18.8	0.0	0.0	0.0	0.0	100.0	0.0	0.0
Other motor vehicle collision on the highway	E815	M	90	56	11	15	0	0	0	8
		F	42	24	14	0	1	0	0	3
		T	132	80	25	15	1	0	0	11
		%	24.0	35.6	25.5	48.4	20.0	0.0	0.0	15.1
Lost control without collision on the highway	E816	M	31	19	7	0	0	0	0	5
		F	14	7	6	0	1	0	0	0
		T	45	26	13	0	1	0	0	5
		%	8.2	11.6	13.3	0.0	20.0	0.0	0.0	6.8
Other non-collision motor vehicle	E818	M	3	0	0	0	0	0	0	3
		F	0	0	0	0	0	0	0	0
		T	3	0	0	0	0	0	0	3
		%	0.5	0.0	0.0	0.0	0.0	0.0	0.0	4.1
Motor vehicle of unspecified nature	E819	M	48	12	7	4	0	0	0	25
		F	24	3	7	0	1	0	0	13
		T	72	15	14	4	1	0	0	38
		%	13.1	6.7	14.3	12.9	20.0	0.0	0.0	52.0
Other off-road motor vehicle	E821	M	1	0	0	0	0	0	0	1
		F	0	0	0	0	0	0	0	0
		T	1	0	0	0	0	0	0	1
		%	0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.4
Other involving collision with stationary object	E823	M	2	1	0	0	0	0	1	0
		F	0	0	0	0	0	0	0	0
		T	2	1	0	0	0	0	1	0
		%	0.4	0.4	0.0	0.0	0.0	0.0	7.1	0.0
Other nontraffic of unspecified nature	E825	M	3	2	0	0	0	0	0	1
		F	0	0	0	0	0	0	0	0
		T	3	2	0	0	0	0	0	1
		%	0.5	0.9	0.0	0.0	0.0	0.0	0.0	1.4

Figure C-3

**Motor Vehicle Deaths
Age-Specific Rates
Massachusetts:1993**

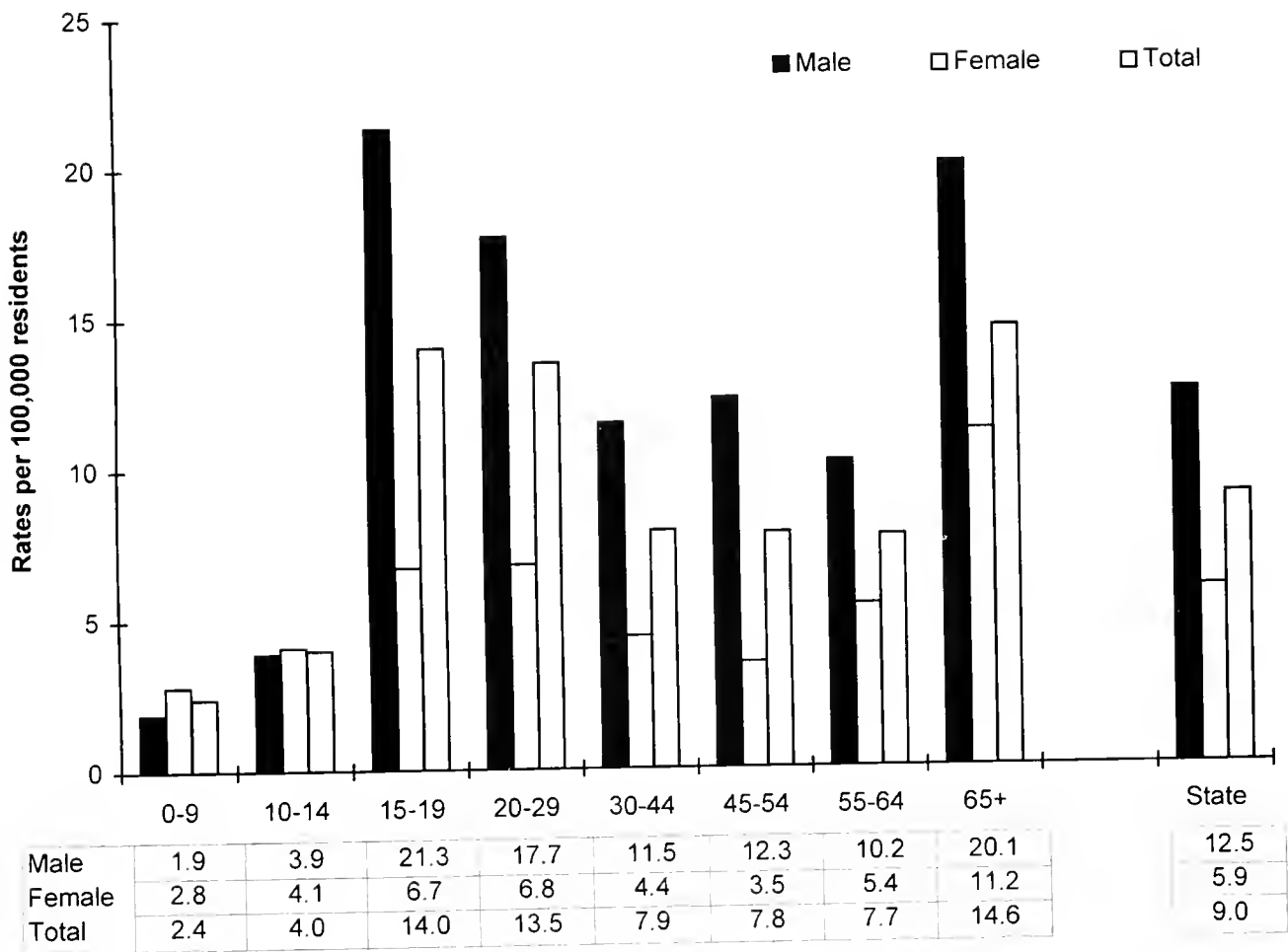


Table C-10A. AIDS¹ and HIV-Related² Deaths by Cause and Place of Occurrence

Massachusetts Resident Deaths: 1987-1993

		AIDS and AIDS-related Deaths	Cause of Death (ICD-9 Codes)			Place of Occurrence			
			AIDS (042)	AIDS-like syndrome (043)	Other HIV infection (044)	At Home	Hospital	Out of State	Hospice/ Other
TOTAL									
1987	#	241	233	3	5	26	207	5	3
	%	100.0	96.7	1.2	2.1	10.8	85.9	2.1	1.2
1988	#	315	303	3	9	67	234	7	7
	%	100.0	96.2	0.9	2.9	21.3	74.3	2.2	2.2
1989	#	404	382	1	21	79	313	7	5
	%	100.0	94.6	0.2	5.2	19.6	77.5	1.7	1.2
1990	#	447	427	4	16	90	284	9	64
	%	100.0	95.5	0.9	3.6	20.1	63.5	2.1	14.3
1991	#	632	595	3	34	159	338	4	131
	%	100.0	94.1	0.5	5.4	25.2	53.5	0.6	20.7
1992	#	701	670	6	25	171	394	14	122
	%	100.0	95.6	0.8	3.6	24.4	56.2	2.0	17.4
1993	#	777	735	3	39	218	413	14	132
	%	100.0	94.6	0.4	5.0	28.1	53.2	1.8	17.0

¹ Acquired Immune Deficiency Syndrome. ² Human Immunodeficiency Virus.

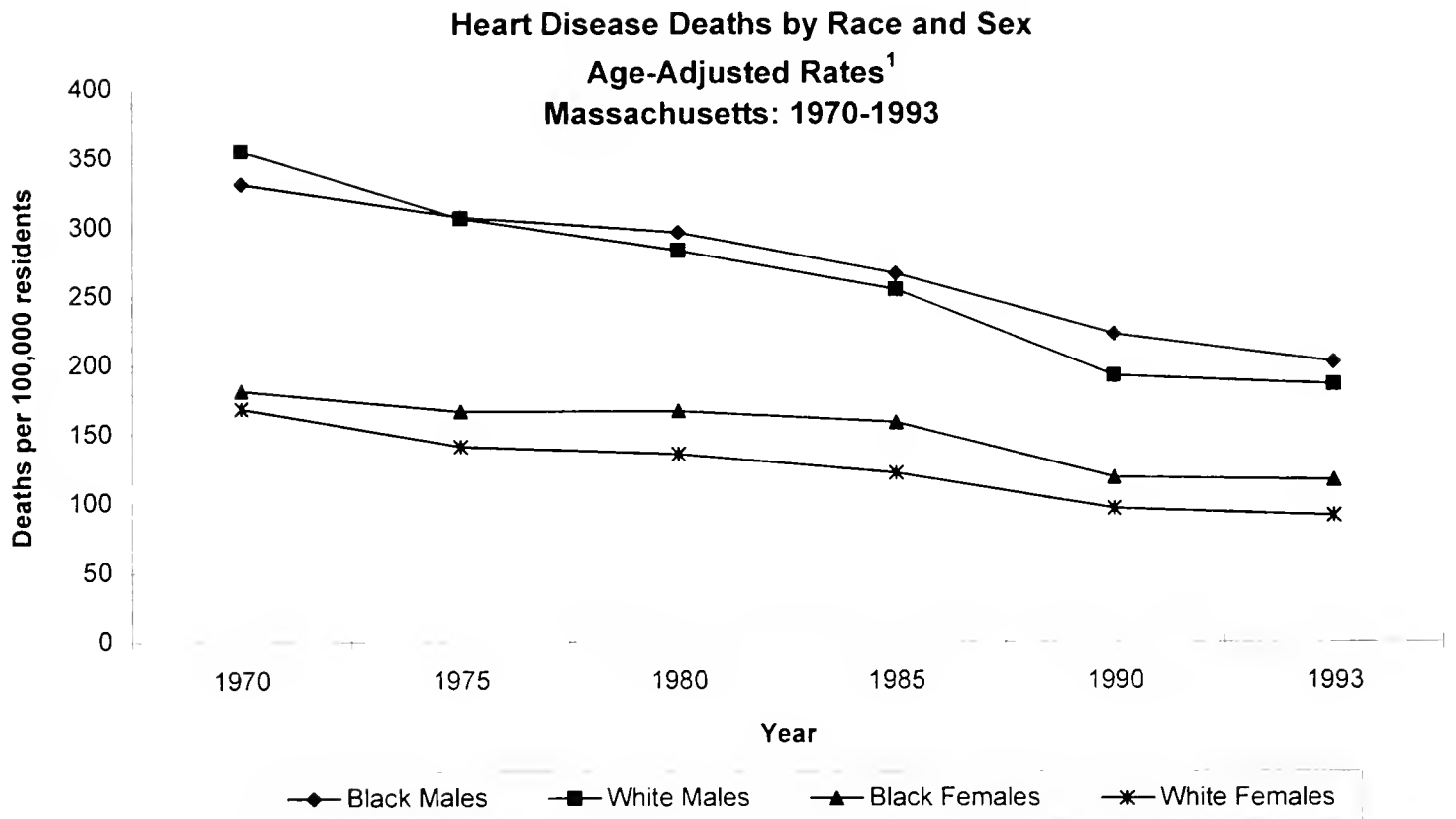
Table C-10B. AIDS and HIV-Related Deaths by Sex, Race and Age

Massachusetts Resident Deaths: 1987-1993

		AIDS and AIDS-related Deaths	Sex		Race			Age (in years)				
			Male	Female	White	Black	Other	< 14	14-24	25-34	35-44	45 +
TOTAL												
1987	#	241	209	32	190	50	1	5	8	105	78	45
	%	100.0	86.7	13.3	78.8	20.8	0.4	2.1	3.3	43.6	32.3	18.7
1988	#	315	281	34	251	64	0	5	12	111	127	60
	%	100.0	89.2	10.8	79.7	20.3	0.0	1.6	3.8	35.2	40.3	19.1
1989	#	404	359	45	327	76	1	3	16	146	167	72
	%	100.0	88.9	11.1	81.0	18.8	0.2	0.8	4.0	36.1	41.3	17.8
1990	#	447	390	57	352	94	1	3	4	147	197	96
	%	100.0	87.2	12.8	78.8	21.0	0.2	0.7	0.9	32.8	44.1	21.5
1991	#	632	535	97	513	118	1	9	19	214	298	92
	%	100.0	84.7	15.3	81.2	18.7	0.1	1.4	3.0	33.8	47.2	14.6
1992	#	701	605	96	519	147	35	6	5	243	304	143
	%	100.0 ¹	86.3	13.7	74.0	21.0	5.0	0.9	0.7	34.7	43.4	20.4
1993	#	777	663	114	612	160	5	10	5	234	359	169
	%	100.0	85.3	14.7	78.8	20.6	0.6	1.3	0.6	30.1	46.2	21.8

¹ Percents may not sum to 100.0 due to rounding.

Figure C-4



1. All rates are age-adjusted by the direct method using the 1940 U.S. Population

Table C-11. Cancer Deaths by Leading Causes, Age-Adjusted Rates¹, Massachusetts Resident Deaths: 1993

Cause of Death	ICD-9 Code	<u>Total</u>		<u>Male</u>		<u>Female</u>	
		Number	Rate ²	Number	Rate	Number	Rate
Total Deaths		55,557	474.5	26,448	622.5	29,109	364.0
Total Cancer Deaths	140-208	13,981	138.2	6,921	167.8	7,060	119.4
Esophagus	150	273	2.9	190	4.9	83	1.3
Stomach	151	386	3.5	211	5.1	175	2.3
Colon, rectum, rectosigmoid junction and anus	153-154	1,673	14.6	786	18.2	887	12.1
Pancreas	157	673	6.5	317	7.7	356	5.7
Trachea, bronchus and lung	162	3,612	38.1	2,013	50.8	1,599	29.0
Female breast	174	1,277	24.3	0	0.0	1,277	24.3
Ovary and other uterine adnexa	183	348	6.8	0	0.0	348	6.8
Prostate	185	832	16.7	832	16.7	0	0.0
Brain	191	300	3.8	161	4.6	139	3.2
Lymphosarcoma and reticulosarcoma, Hodgkin's disease and other cancers of lymphoid and histiocytic tissue	200-202	605	6.0	282	7.0	323	5.2
All other cancers	Residual	4,002	39.4	1,873	29.7	2,129	52.8

¹ All rates are age-adjusted by the direct method using 1940 U.S. Census data. Rates are per 100,000 population. ² The total resident population is used to calculate all "Total Rates" except for ICD-9 Codes 174 and 183, which are based only on the total female population, and ICD-9 Code 185, which is based only on the total male population.

Figure C-5

Cancer Deaths by Race and Sex
Age-Adjusted Rates
Massachusetts: 1970-1993

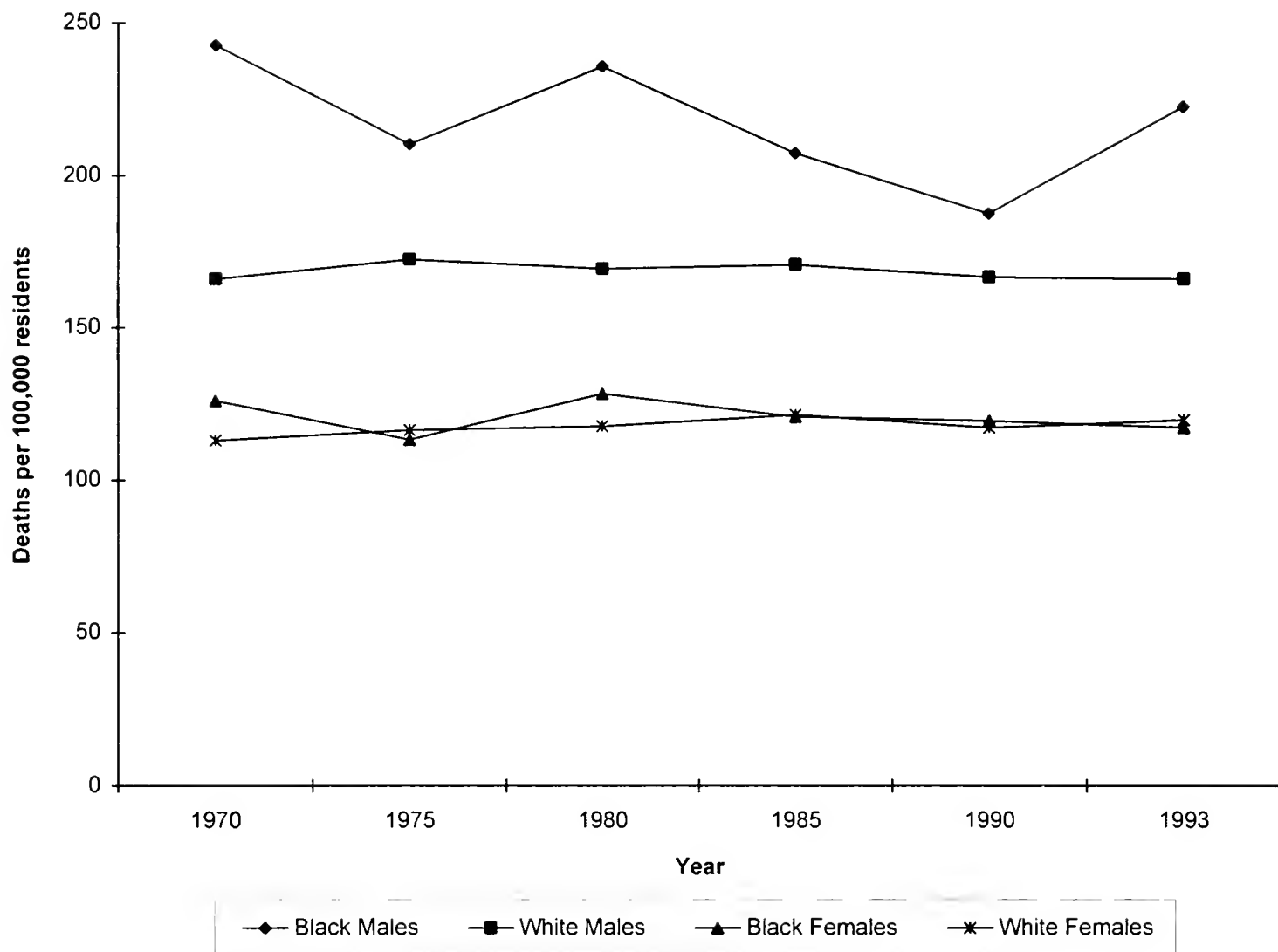


Table C-12. Medical Examiner Certified Deaths by Cause, Race, Sex and Age, Massachusetts Occurrence: 1993

Age	Race/Sex	Total Deaths Certified by Medical Examiner	Motor Vehicle Injuries (E810-E825)	Suicide (E950-E959)	Homicide (E960-E969)	Legal Intervention/ Undeter. Injury (E970-E999)	All Other Injuries (E800-E809, E826-E949)	Non-violent Causes (000-779)	Ill-Defined & Unknown Causes (780-799)
TOTAL ¹	White M	2,699	312	337	97	264	273	1,406	10
	F	1,293	167	114	57	65	127	757	6
	Black M	261	12	15	73	28	14	118	1
	F	99	6	3	15	5	4	63	3
	Other M	35	7	5	5	3	4	11	0
< 1	F	19	4	1	0	0	6	8	0
	Total	4,407	508	475	247	365	428	2,364	20
1-14	White M	18	1	0	1	0	3	13	0
	F	8	1	0	3	0	0	4	0
	Black M	4	0	0	2	0	0	2	0
	F	2	0	0	2	0	0	0	0
	Other M	2	0	0	1	0	0	1	0
15-19	F	1	0	0	0	0	0	1	0
	Total	35	2	0	9	0	3	21	0
	White M	45	13	5	2	2	15	7	1
	F	37	13	0	6	0	12	6	0
	Black M	10	2	1	1	1	3	2	0
20-24	F	6	2	1	0	0	1	2	0
	Other M	2	1	0	0	0	1	0	0
	F	4	2	0	0	0	1	1	0
	Total	104	33	7	9	3	33	18	1
	White M	83	40	16	10	3	8	5	1
25-29	F	32	14	6	5	0	4	3	0
	Black M	21	2	1	14	0	1	3	0
	F	5	0	0	4	0	0	1	0
	Other M	6	2	0	1	0	3	0	0
	F	3	0	0	0	0	3	0	0
30-34	Total	150	58	23	34	3	19	12	1

¹ Total includes five white males of unknown age, one white female of unknown age, and one female of unknown race.

Table C-12 (continued): Medical Examiner Certified Deaths by Cause, Race, Sex and Age, Massachusetts Occurrence: 1993

Age	Race/Sex	Total Deaths Certified by Medical Examiner	Motor Vehicle Injuries (E810-E825)	Suicide (E950-E959)	Homicide (E960-E969)	Legal Intervention/ Undeter. Injury (E970-E999)	All Other Injuries (E800-E809, E826-E949)	Non-violent Causes (000-779)	Ill-Defined & Unknown Causes (780-799)
20-29	White M	278	78	60	27	47	35	31	0
	F	99	33	15	17	19	6	9	0
	Black M	50	2	7	30	5	0	6	0
	F	9	2	1	2	1	0	3	0
	Other M	8	2	3	2	1	0	0	0
30-39	F	1	0	1	0	0	0	0	0
	Total	445	117	87	78	73	41	49	0
	White M	513	53	86	28	131	54	156	5
	F	106	20	21	9	21	5	29	1
	Black M	57	3	3	17	12	5	17	0
40-49	F	19	1	0	4	3	0	11	0
	Other M	6	1	1	1	1	0	2	0
	F	1	1	0	0	0	0	0	0
	Total	702	79	111	59	168	64	215	6
	White M	471	35	66	16	61	36	255	2
50-59	F	157	12	30	9	15	9	81	1
	Black M	45	0	3	5	9	2	25	1
	F	19	0	1	2	1	0	13	2
	Other M	2	0	0	0	1	0	1	0
	F	4	1	0	0	0	0	3	0
50-59	Total	698	48	100	32	87	47	378	6
	White M	363	26	40	4	9	26	257	1
	F	89	10	13	3	4	5	53	1
	Black M	33	2	0	2	0	2	27	0
	F	8	0	0	0	0	1	7	0
50-59	Other M	3	1	0	0	0	0	2	0
	F	0	0	0	0	0	0	0	0
	Total	496	39	53	9	13	34	346	2

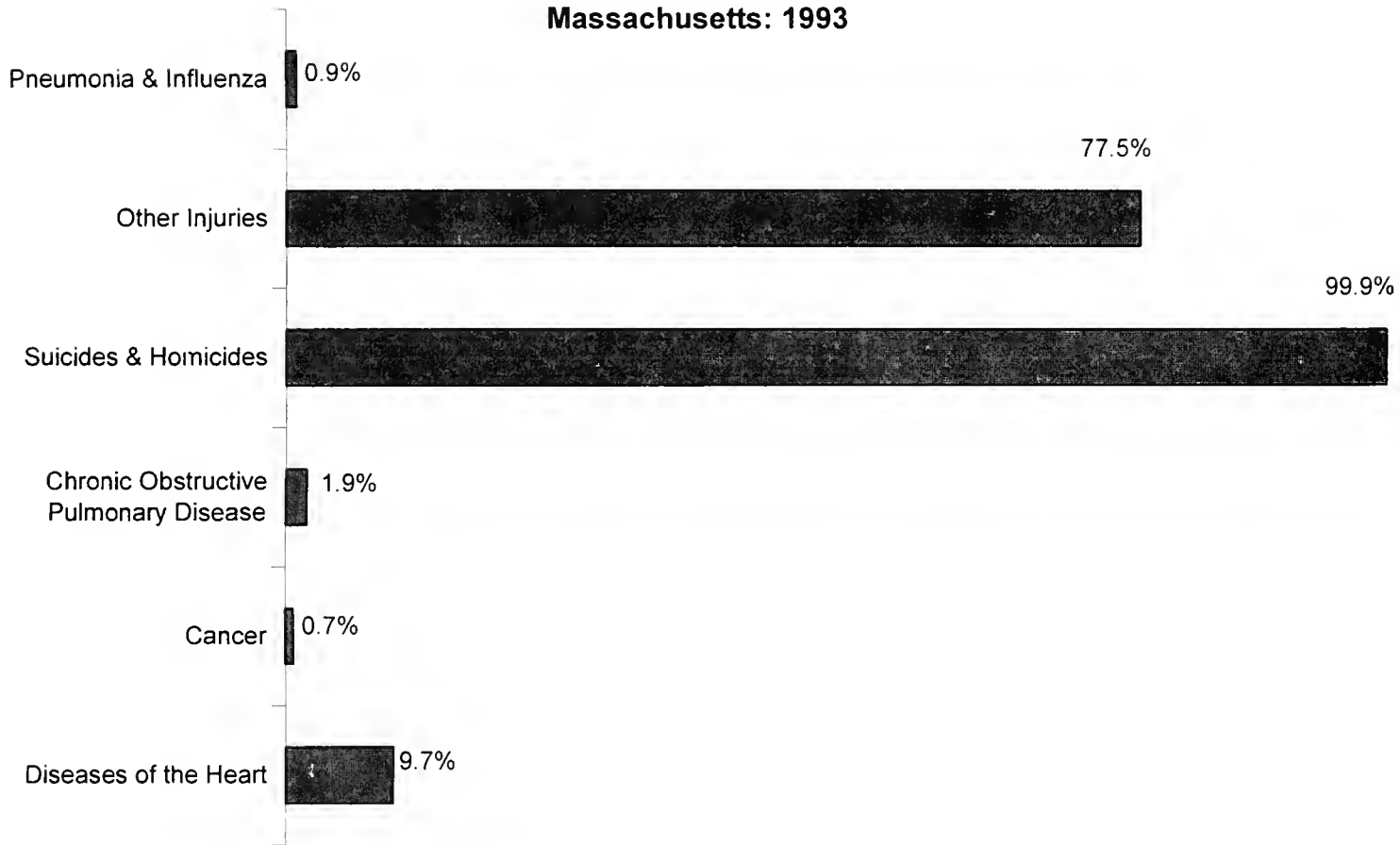
Table C-12 (continued). Medical Examiner Certified Deaths by Cause, Race, Sex and Age, Massachusetts Occurrence: 1993

Age	Race/Sex	Total Deaths Certified by Medical Examiner		Motor Vehicle Injuries (E810-E825)	Suicide (E950-E959)	Homicide (E960-E969)	Legal Intervention/ Undeter. Injury (E970-E999)		All Other Injuries (E800-E809, E826-E949)	Non-violent Causes (000-779)	Ill-Defined & Unknown Causes (780-799)
							Undeter. Injury (E970-E999)				
60-69	White M	373		20	28	5	6		28	286	0
	F	182		20	18	0	4		16	124	0
	Black M	16		0	0	1	1		1	13	0
	F	17		0	0	0	0		2	14	1
	Other M	3		0	0	0	0		0	3	0
70-79	F	1		0	0	0	0		1	0	0
	Total	592		40	46	6	11		48	440	1
	White M	337		23	27	3	1		30	253	0
	F	247		23	7	1	1		23	190	2
	Black M	15		1	0	1	0		0	13	0
> 80	F	10		1	0	0	0		0	9	0
	Other M	3		0	1	0	0		0	2	0
	F	1		0	0	0	0		1	0	0
	Total	614		48	35	5	2		54	468	2
	White M	213		22	9	0	2		38	142	0
> 80	F	335		21	4	4	0		47	253	1
	Black M	10		0	0	0	0		0	10	0
	F	4		0	0	1	0		0	3	0
	Other M	0		0	0	0	0		0	0	0
	F	3		0	0	0	0		0	3	0
	Total	565		43	13	5	2		85	416	1

Figure C-6

**Proportion of Deaths Certified by
Medical Examiner for Selected Causes of Death**

**Occurrence Deaths
Massachusetts: 1993**



Percent of Selected Underlying Causes

Table C-13. Medical Examiner Certified Deaths by County, Massachusetts Occurrence: 1993

County		Population	Occurrence Deaths	M.E. Certified ¹	Referred--Not Certified By M.E. ¹	Natural Cause Deaths Certified by M.E. ²
TOTAL	#	6,083,200	56,394	4,491	10,291	2,408
	%	100.0 ³	100.0	8.0	18.2	53.6
	Rank	--	--	--	--	--
Barnstable	#	198,691	2,278	224	399	141
	%	3.3	4.0	9.8	17.5	62.9
	Rank	9	9	4	6	4
Berkshire	#	139,379	1,701	107	265	63
	%	2.3	3.0	6.3	15.6	58.9
	Rank	11	10	14	10	7
Bristol	#	504,582	4,519	383	771	199
	%	8.3	8.0	8.5	17.1	52.0
	Rank	6	7	7	7	10
Dukes	#	12,388	110	19	4	13
	%	0.2	0.2	17.3	3.6	68.4
	Rank	13	13	1	14	2
Essex	#	673,904	5,965	479	892	315
	%	11.1	10.6	8.0	15.0	65.8
	Rank	4	4	8	11	3
Franklin	#	71,532	585	52	64	28
	%	1.2	1.0	8.9	10.9	53.8
	Rank	12	12	6	12	9
Hampden	#	454,693	4,930	354	1,125	162
	%	7.5	8.7	7.2	22.8	45.8
	Rank	7	5	10	1	13
Hampshire	#	149,660	1,019	80	166	37
	%	2.5	1.8	7.9	16.3	46.3
	Rank	10	11	9	8	12
Middlesex	#	1,414,546	11,038	723	2,216	407
	%	23.3	19.6	6.6	20.1	56.3
	Rank	1	1	12	2	8
Nantucket	#	6,697	71	11	3	9
	%	0.1	0.1	15.5	4.2	81.8
	Rank	14	14	2	13	1
Norfolk	#	630,758	4,826	313	960	192
	%	10.4	8.6	6.5	19.9	61.3
	Rank	5	6	13	3	5
Plymouth	#	438,304	3,082	302	594	182
	%	7.2	5.5	9.8	19.3	60.3
	Rank	8	8	5	5	6
Suffolk	#	675,423	9,574	975	1,511	461
	%	11.1	17.0	10.2	15.8	47.3
	Rank	3	2	3	9	11
Worcester	#	712,643	6,696	469	1,321	199
	%	11.7	11.9	7.0	19.7	42.4
	Rank	2	3	11	4	14

¹ The percentages and ranks in the Medical Examiner Certified Deaths column and the Referred--Not Certified by Medical Examiner column are based on the totals in the Occurrence Deaths column. ² The percentages and ranks of natural cause deaths certified by medical examiners are based on the total number of medical examiner certified deaths for each county. ³ Percents do not sum to 100.0 due to rounding.

TABLE C-14A
SELECTED CAUSES OF DEATH BY CITY AND TOWN OF RESIDENCE
1993

	HEART DISEASES (390-398, 402, 404-429)	MALIGNANT NEOPLASMS (140-209)	CEREBROVASCULAR DISEASE (430-438)	MOTOR VEHICLE ACCIDENTS(810-825)	OTHER ACCIDENTS (800-807,826-949)	INFLUENZA & PNEUMONIA (480-487)	CHRONIC OBSTRUCTIVE PULMONARY (490-496)	DIABETES MELLITUS (250)	CHRONIC LIVER DIS. & CIRRHOSIS (571)	ATHEROSCLEROSIS (440)	SUICIDE (950-959)	ALL OTHER CAUSES	TOTAL
ABINGTON	49	32	5	1	4	2	4	3	2	0	0	22	124
ACTION	25	28	8	0	4	2	4	5	1	1	1	11	90
ACUSHNET	32	29	6	2	0	0	5	0	0	1	1	13	89
ADAMS	39	34	12	0	2	7	6	4	0	0	0	18	122
AGAWAM	78	59	12	4	3	20	16	7	4	2	1	55	261
ALFORD	0	0	0	0	0	0	0	0	0	0	0	0	0
AMESBURY	45	32	10	1	2	11	10	5	2	1	1	27	147
AMHERST	37	24	7	1	1	11	5	6	1	0	2	22	127
ANDOVER	73	64	17	2	1	4	5	3	1	0	5	31	210
ARLINGTON	158	120	30	4	5	34	8	5	2	1	5	97	469
ASHBURNHAM	15	9	1	1	3	0	3	1	1	1	0	5	40
ASHBY	7	4	2	0	0	0	1	2	0	0	0	2	18
ASHFIELD	1	2	1	0	1	1	0	1	0	0	0	1	8
ASHLAND	21	19	5	2	1	6	2	0	1	0	1	8	66
ATHOL	52	42	7	2	0	8	4	0	1	1	0	27	144
ATTLEBORO	123	77	28	6	7	16	11	7	2	1	4	58	340
AUBURN	44	37	4	4	2	9	14	2	1	1	3	25	145
AVON	19	14	1	0	2	2	1	1	1	2	0	8	51
AYER	17	14	3	0	1	4	3	1	0	0	0	20	63
BARNSTABLE	149	122	27	2	8	30	23	8	8	4	2	95	478
BARRE	12	13	3	0	0	1	1	1	0	0	0	3	34
BECKET	4	3	0	1	0	1	0	0	0	0	1	1	11
BEDFORD	39	32	7	1	1	8	4	3	1	0	2	31	129
BELCHERTOWN	18	21	4	1	3	3	4	1	0	0	4	11	70
BELLINGHAM	34	26	7	0	0	3	4	2	1	0	0	9	86
BELMONT	70	72	14	1	4	14	9	2	1	1	0	40	228
BERKLEY	9	8	0	2	2	0	1	0	0	0	0	6	28
BERLIN	5	4	2	0	2	0	1	0	0	0	0	3	17
BERNARDSTON	4	4	1	0	1	2	0	3	0	0	0	4	19
BEVERLY	102	101	16	4	8	25	20	3	7	3	1	84	374
BILLERICA	83	69	10	5	2	11	6	2	2	1	3	51	245
BLACKSTONE	21	16	5	1	1	1	1	1	1	0	3	8	59
BLANDFORD	1	0	0	0	0	0	0	0	0	0	0	0	1
BOLTON	1	2	2	1	0	1	1	0	0	0	0	2	10
BOSTON	1462	1212	275	38	87	277	180	120	64	17	35	1544	5311
BOURNE	53	31	11	3	3	8	6	2	1	1	1	26	146
BOXBOROUGH	1	4	1	0	0	0	0	0	0	0	0	0	6
BOXFORD	11	12	2	0	1	0	0	0	0	1	0	4	31
BOYLSTON	13	5	2	0	0	1	3	1	0	1	0	4	30
BRAINTREE	124	108	26	0	7	24	17	8	4	1	3	91	413

BRENSTER	38	33	8	1	1	7	3	2	0	3	2	17	115
BRIDGEMATER	34	32	6	2	3	7	5	2	2	1	1	21	116
BRIMFIELD	9	5	1	0	0	1	1	0	0	0	0	4	21
BROCKTON	283	208	48	5	8	48	42	15	6	11	10	203	887
BROOKFIELD	7	7	2	1	1	0	2	2	0	0	0	5	27
BROOKLINE	154	118	31	1	10	23	18	11	2	1	2	104	475
BROOKLAND	3	0	0	1	0	0	2	0	0	0	0	0	6
BURLINGTON	33	39	7	3	6	3	10	3	1	3	0	30	138
CAMBRIDGE	213	175	31	4	11	36	28	24	9	1	10	169	711
CANTON	61	44	7	1	1	8	7	3	5	1	0	28	166
CARLISLE	3	4	0	1	0	1	0	0	0	0	0	5	14
CARVER	29	26	5	0	4	1	8	3	0	0	0	13	89
CHARLEMONT	0	1	1	1	0	0	2	0	0	0	0	3	8
CHARLTON	43	12	4	2	1	6	1	1	0	0	0	11	81
CHATHAM	41	21	11	1	4	2	4	3	1	7	0	19	114
CHELMSFORD	81	63	11	4	3	7	12	4	2	1	1	31	220
CHELSEA	92	78	16	5	4	11	20	8	2	0	1	78	315
CHESHIRE	10	7	2	0	2	0	3	0	1	0	0	7	32
CHESTER	3	1	1	0	0	0	0	0	0	0	0	0	5
CHESTERFIELD	1	0	1	0	0	0	0	0	1	0	0	0	3
CHICOPEE	198	163	42	5	2	23	39	17	4	9	2	120	624
CHILMARK	4	3	0	0	0	0	0	0	0	0	0	0	7
CLARKSBURG	7	0	2	0	1	1	0	2	1	0	0	2	16
CLINTON	47	23	8	2	2	11	2	7	0	0	0	23	125
COHASSET	23	17	1	0	1	4	1	1	1	0	1	12	62
COLRAIN	2	2	1	0	3	1	0	0	1	0	0	3	13
CONCORD	41	25	17	1	3	15	7	3	1	2	3	26	144
CONWAY	0	3	2	1	0	0	0	0	0	0	0	2	8
CUMMINGTON	3	2	0	0	1	0	0	0	1	0	0	1	8
DALTON	27	15	3	1	1	2	6	1	1	0	0	14	71
DANVERS	102	60	11	2	3	24	10	5	1	4	1	42	265
DARTMOUTH	95	70	12	2	3	11	6	7	2	7	1	52	268
DEDHAM	76	61	16	1	8	12	6	7	5	0	0	54	246
DEERFIELD	15	9	3	0	0	3	2	1	0	0	1	3	37
DENNIS	73	56	15	4	1	11	11	4	1	8	0	35	219
DIGHTON	19	8	6	1	1	3	3	1	1	1	0	5	49
DOUGLAS	16	8	1	0	1	1	2	1	0	0	0	6	36
DOVER	5	10	1	0	0	1	3	1	0	0	3	7	31
DRACUT	59	63	8	2	2	3	6	0	6	1	2	41	193
DUDLEY	18	18	2	0	1	4	0	1	3	0	1	8	56
DUNSTABLE	5	3	0	1	0	0	0	0	0	0	0	1	10
DUXBURY	30	31	5	0	1	6	8	1	1	0	1	13	97
EAST BRIDGEMATER	27	28	6	1	1	5	5	1	3	0	0	16	93
EAST BROOKFIELD	5	7	0	0	0	0	2	0	0	0	0	7	21
EAST LONGMEADOW	47	37	13	0	5	5	17	2	1	4	4	27	162
EASTHAM	15	17	1	0	1	3	2	1	0	1	0	6	47
EASTHAMPTON	48	52	9	4	3	3	13	1	1	0	1	21	156
EASTON	45	39	3	0	1	9	4	1	2	0	1	30	135
EDGARTOWN	5	5	3	0	0	1	0	0	0	1	0	4	19
EGREMONT	5	4	0	0	0	1	0	0	0	0	0	2	12

HINGHAM	54	46	7	0	3	7	7	2	1	1	0	1	0	34	162
HINSDALE	9	1	1	1	0	4	1	1	0	0	1	1	1	1	20
HOLBROOK	33	31	8	2	0	4	1	3	1	2	0	0	21	104	
HOLDEN	33	32	12	1	6	5	4	2	0	2	0	0	26	123	
HOLLAND	5	2	0	0	0	0	0	2	0	0	0	0	1	10	
HOLLISTON	18	32	3	0	0	2	4	0	2	0	0	0	15	77	
HOLYOKE	186	89	43	0	11	29	25	16	6	4	7	7	129	545	
HOPEDALE	18	6	4	1	2	7	5	1	0	2	2	2	7	55	
HOPKINTON	15	14	4	2	0	1	4	3	0	0	1	1	11	55	
HUBBARDSTON	6	2	1	0	0	0	0	0	0	0	1	1	1	11	
HUDSON	53	41	3	3	2	7	6	2	3	1	0	0	23	144	
HULL	26	36	4	3	1	5	2	1	3	0	0	0	24	105	
HUNTINGTON	3	2	0	0	1	0	0	1	0	0	0	0	3	10	
IPSWICH	35	29	9	0	2	10	9	5	0	0	1	1	17	117	
KINGSTON	32	19	3	1	0	3	6	1	1	1	0	0	13	80	
LAKEVILLE	18	18	7	1	3	3	3	4	0	0	0	0	14	71	
LANCASTER	16	12	3	0	0	4	1	1	0	0	0	0	10	47	
LANESBOROUGH	6	5	2	0	1	0	3	0	0	0	0	0	5	22	
LAWRENCE	224	116	41	7	13	15	22	17	5	7	2	2	122	591	
LEE	11	19	8	1	2	3	4	1	1	1	1	1	13	65	
LEICESTER	23	25	2	1	1	10	6	4	2	0	0	0	22	96	
LENEX	23	12	9	0	0	6	1	0	1	0	0	0	30	82	
LEOMINSTER	112	89	35	2	3	23	16	11	6	3	3	3	60	363	
LEVERETT	1	1	0	1	0	1	2	0	0	0	0	0	2	8	
LEXINGTON	72	54	19	3	1	16	12	6	1	1	0	0	53	238	
LEYDEN	1	0	1	0	0	0	1	0	0	0	0	0	0	3	
LINCOLN	6	13	2	0	0	3	1	0	1	0	0	0	11	37	
LITTLETON	22	13	5	0	1	1	3	5	0	0	0	0	13	63	
LONGMEADOW	53	40	7	3	2	9	3	3	0	1	0	0	32	153	
LOMELL	283	206	50	11	19	45	52	22	13	8	13	13	210	932	
LUDLOW	51	48	5	2	1	4	8	5	3	2	0	0	16	145	
LUNENBURG	25	19	0	1	3	2	6	2	0	1	1	1	11	71	
LYNN	289	224	63	8	10	44	30	12	13	0	7	7	164	864	
LYNNFIELD	29	26	2	2	5	2	1	1	0	0	1	1	14	83	
MALDEN	194	149	32	2	7	29	22	14	2	2	7	7	115	575	
MANCHESTER	13	13	0	0	1	2	2	1	1	0	0	0	4	37	
MANSFIELD	26	29	6	3	1	3	6	2	1	0	1	1	15	93	
MARBLEHEAD	43	62	18	0	1	9	2	1	0	1	3	3	39	179	
MARION	19	12	4	0	1	2	2	1	1	0	0	0	8	50	
MARLBOROUGH	76	72	10	1	2	10	5	8	1	1	1	1	67	254	
MARSHFIELD	50	41	6	5	5	5	4	1	1	2	0	0	32	152	
MASHPEE	14	13	2	1	2	2	6	3	0	0	3	3	9	55	
MATTAPOISETT	23	18	2	1	0	1	1	1	0	0	1	1	5	53	
MEDFORD	16	15	8	1	2	6	1	1	1	0	0	0	15	84	
MEDFORD	198	155	48	5	10	29	25	12	6	3	8	8	125	624	
MEDWAY	20	24	2	1	1	3	2	0	1	1	2	2	16	73	
MELROSE	99	67	19	0	2	11	12	1	3	1	3	3	58	276	
MENDON	11	8	2	0	0	3	0	0	0	0	0	0	3	27	
MERRIMAC	15	6	1	1	1	0	0	1	0	0	0	0	3	28	

TABLE C-14A (CONTINUED)
SELECTED CAUSES OF DEATH BY CITY AND TOWN OF RESIDENCE
1993

	HEART DISEASES (390-398, 402, 404-429)	MALIGNANT NEOPLASMS (140-209)	CEREBROVASCULAR DISEASE (1430-1438)	MOTOR VEHICLE ACCIDENTS (1810-1825)	OTHER ACCIDENTS (800-807, 826-949)	INFLUENZA & PNEUMONIA (1480-1487)	CHRONIC OBSTRUCTIVE PULMONARY (1490-1496)	DIABETES MELLITUS (250)	CHRONIC LIVER DIS. & CIRRHOSIS (571)	ATHEROSCLEROSIS (440)	SUICIDE (950-959)	ALL OTHER CAUSES	TOTAL
METHUEN	181	112	22	2	3	17	13	11	8	1	1	65	436
MIDDLEBOROUGH	43	33	8	4	3	7	12	5	3	1	2	29	150
MIDDLEFIELD	2	0	0	0	0	1	2	0	0	0	0	0	5
MIDDLETON	19	9	3	0	0	10	6	0	0	1	1	9	42
MILFORD	66	64	11	3	2	10	7	5	4	2	2	39	214
MILLBURY	40	30	8	0	1	6	7	4	2	0	4	27	129
MILLIS	10	13	1	2	0	2	0	1	0	0	0	7	36
MILLVILLE	6	3	1	1	0	0	0	0	0	0	0	2	13
MILTON	94	69	6	1	4	9	9	8	1	1	1	44	247
MONROE	0	0	0	0	0	0	0	0	0	0	0	0	0
MONSON	29	23	1	0	2	3	5	0	0	0	2	6	71
MONTAGUE	37	22	9	0	1	7	4	2	1	0	2	22	107
MONTGOMERY	1	2	0	1	1	0	1	0	0	0	0	0	6
MONTGOMERY	0	1	0	0	0	2	0	0	0	0	0	0	3
MOUNT WASHINGTON	1	0	1	0	0	0	0	0	0	0	0	1	3
NAHANT	16	8	5	0	0	3	2	0	1	1	0	10	46
NANTUCKET	19	23	5	0	1	2	3	1	0	0	1	18	73
NATICK	92	70	27	3	6	10	6	3	4	1	4	55	281
NEEDHAM	81	55	19	0	3	16	8	3	2	0	1	58	246
NEW ASHFORD	1	0	0	0	0	0	0	0	0	0	0	0	1
NEW BEDFORD	391	288	88	10	12	50	45	46	13	20	15	225	1203
NEW BRAINTREE	2	0	0	0	0	0	0	0	0	0	0	0	2
NEW MARLBOROUGH	4	2	3	0	0	0	0	0	0	0	0	5	14
NEW SALEM	1	2	0	0	0	1	1	0	0	0	0	1	6
NEWBURY	19	10	2	0	0	1	1	1	0	1	0	5	40
NEWBURYPORT	66	39	12	4	2	14	9	5	2	0	2	27	182
NEWTON	215	186	55	6	5	34	38	14	3	7	6	136	705
NORFOLK	8	7	3	2	1	2	1	2	0	0	1	5	32
NORTH ADAMS	66	35	8	3	4	9	11	5	5	2	0	34	182
NORTH ANDOVER	64	54	13	2	1	4	6	2	3	1	1	46	197
NORTH ATTLEBORO	65	50	10	0	2	11	8	3	2	1	2	34	188
NORTH BROOKFIELD	14	4	0	0	0	4	1	1	0	0	0	4	28
NORTH READING	20	21	1	1	0	2	6	2	0	1	2	10	66
NORTHAMPTON	109	62	21	5	6	23	21	5	1	1	1	65	320
NORTHBOROUGH	18	10	3	1	1	7	6	1	0	0	2	9	58
NORTHBRIDGE	39	30	10	0	2	10	3	5	1	0	1	32	133
NORTHFIELD	6	7	0	0	0	2	2	1	2	0	0	3	23
NORTON	27	18	6	0	4	5	2	2	5	0	2	24	95
NORWELL	23	18	6	1	2	6	2	1	0	0	0	7	66
NORWOOD	108	79	33	0	5	18	11	12	6	3	4	58	337

OAK BLUFFS	10	11	5	0	3	3	1	1	1	0	0	1	9	45
OAKHAM	2	1	1	1	0	0	0	0	0	0	0	0	0	5
ORANGE	14	18	2	3	0	1	4	1	1	1	0	1	21	66
ORLEANS	26	34	6	0	2	3	4	1	0	0	2	0	10	88
OTIS	3	2	1	0	0	0	0	1	1	1	0	0	1	11
OXFORD	34	30	4	2	2	5	6	8	1	1	0	2	18	112
PALMER	54	39	10	2	4	3	6	4	0	0	1	0	30	153
PAXTON	14	9	0	0	0	0	2	0	1	1	0	0	3	29
PEABODY	132	102	23	2	6	14	18	8	5	5	2	4	69	385
PELHAM	2	1	0	0	1	1	0	0	0	0	0	0	2	7
PEMBROKE	18	30	5	5	1	5	2	4	1	1	0	0	15	86
PEPPERELL	14	17	4	3	0	3	3	1	1	1	0	0	9	55
PERU	1	3	0	0	0	0	0	0	0	0	0	0	0	4
PETERSHAM	3	2	1	0	1	1	0	0	1	1	0	0	2	11
PHILLIPSTON	3	6	0	0	0	0	1	0	0	0	0	0	2	12
PITTSFIELD	186	171	31	2	6	27	18	16	5	5	3	8	96	569
PLAINFIELD	3	0	0	0	1	0	0	0	0	0	0	0	0	4
PLAINVILLE	8	20	2	2	0	3	3	2	1	1	0	0	13	54
PLYMOUTH	129	84	16	7	5	14	18	12	2	2	2	2	73	364
PLYMPTON	2	5	1	0	0	2	0	0	0	0	0	0	2	12
PRINCETON	5	7	1	0	0	0	0	0	0	0	0	0	2	15
PROVINCETOWN	17	14	3	1	2	3	2	2	0	0	2	1	34	81
QUINCY	283	263	46	8	9	43	23	19	14	0	3	9	199	919
RANDOLPH	99	85	13	1	2	14	10	8	2	2	0	0	62	296
RAYNHAM	29	16	2	1	2	3	2	1	1	1	1	1	10	69
READING	51	53	15	0	0	6	6	3	3	3	2	1	35	175
REHOBOTH	22	16	3	3	2	1	1	0	0	0	0	1	6	55
REVERE	151	141	21	5	3	22	17	11	7	0	0	4	100	482
RICHMOND	3	3	0	0	0	0	0	1	0	0	0	0	1	8
ROCHESTER	10	9	0	0	1	0	1	0	0	0	0	0	8	29
ROCKLAND	42	32	6	2	2	6	5	5	0	0	1	0	33	134
ROCKPORT	29	24	5	1	2	2	3	6	0	0	0	1	13	86
ROWE	1	1	1	0	0	0	0	0	0	0	0	0	1	4
ROWLEY	11	11	4	0	1	1	1	0	1	1	0	0	9	39
ROYALSTON	1	1	0	0	0	0	1	0	0	0	0	0	0	3
RUSSELL	4	0	0	0	0	0	0	0	0	0	0	0	2	6
RUTLAND	4	7	0	1	1	1	0	0	1	1	1	1	5	22
SALEM	138	100	30	3	4	16	19	5	5	5	2	2	74	396
SALISBURY	21	21	3	5	3	0	1	5	0	0	2	1	11	73
SANDWICH	2	2	0	0	0	0	0	0	0	0	0	0	0	4
SANDWICH	42	34	8	2	2	6	5	1	2	2	0	1	28	131
SAUGUS	36	70	14	0	2	11	10	4	2	2	2	1	40	242
SAVOY	2	2	0	0	0	0	0	0	0	0	0	1	1	5
SCITUATE	44	31	4	0	4	8	10	5	1	1	1	2	33	143
SEEKONK	45	20	2	3	1	5	4	1	2	0	0	0	13	96
SHARON	22	26	8	0	1	1	1	3	0	0	1	1	12	78
SHEFFIELD	11	9	1	1	1	1	3	1	0	0	1	0	3	32
SHELburne	11	4	5	1	0	2	0	0	0	0	0	0	3	27
SHERBORN	9	4	1	0	0	1	0	0	1	1	0	2	4	22
SHIRLEY	7	9	0	0	2	3	3	1	1	1	0	1	5	32

TABLE C-14A (CONTINUED)
SELECTED CAUSES OF DEATH BY CITY AND TOWN OF RESIDENCE
1993

	HEART DISEASES (390-398, 402, 404-429)	MALIGNANT NEOPLASMS (140-209)	CEREBROVASCULAR DISEASE (430-438)	MOTOR VEHICLE ACCIDENTS (810-825)	OTHER ACCIDENTS (800-807, 826-949)	INFLUENZA & PNEUMONIA (480-487)	CHRONIC OBSTRUCTIVE PULMONARY (490-496)	DIABETES MELLITUS (250)	CHRONIC LIVER DIS. & CIRRHOSIS (571)	ATHEROSCLEROSIS (440)	SUICIDE (950-959)	ALL OTHER CAUSES	TOTAL
SHREWSBURY	69	47	12	2	4	10	11	3	3	7	3	40	211
SHUTESBURY	1	1	1	0	0	1	0	0	0	0	0	1	5
SOMERSET	63	44	7	3	2	7	7	4	2	7	1	29	176
SOMERVILLE	193	176	43	2	9	37	28	26	4	2	4	133	657
SOUTH HADLEY	57	36	12	0	2	4	4	4	2	1	1	26	150
SOUTHAMPTON	9	10	2	1	0	1	0	1	0	0	0	7	31
SOUTHBOROUGH	12	12	0	0	0	0	0	2	1	0	0	10	37
SOUTHBURIDGE	60	36	15	3	2	10	4	6	0	0	3	39	178
SOUTHWICK	11	16	6	1	1	3	2	1	1	0	0	4	46
SPENCER	20	24	3	2	0	3	3	0	1	1	0	21	78
SPRINGFIELD	523	342	93	21	22	88	68	45	19	17	10	417	1665
STERLING	8	11	2	0	1	2	4	0	0	0	0	5	33
STOCKBRIDGE	10	4	3	0	0	0	2	1	0	0	1	2	23
STONEHAM	53	55	13	3	2	15	12	3	4	3	2	40	205
STOUGHTON	60	77	8	1	4	9	9	7	3	0	1	44	223
STON	9	7	3	0	0	2	1	0	0	0	0	4	26
STURBRIDGE	20	9	5	0	0	1	2	6	0	0	1	5	49
SUDBURY	15	26	10	0	3	7	4	1	0	0	0	26	92
SUNDERLAND	5	5	1	2	0	2	0	0	0	0	1	4	20
SUTTON	8	13	4	0	1	2	1	0	0	0	0	7	36
SWAMPSCOTT	39	42	8	1	3	7	1	4	1	2	0	38	146
SWANSEA	41	32	7	1	3	5	6	5	3	0	1	21	125
TAUNTON	157	100	24	6	3	20	16	10	10	6	4	80	436
TEMPLETON	32	12	0	0	2	4	2	2	2	1	1	11	69
TENKSBRURY	68	51	12	0	3	13	11	2	2	3	0	28	193
TISBURY	8	14	4	0	0	4	1	1	0	0	1	6	39
TOLLAND	0	0	0	0	0	0	0	0	0	0	0	0	0
TOPSFIELD	9	11	0	0	0	2	1	1	0	1	0	5	30
TOWNSEND	9	13	4	1	0	3	2	0	0	0	1	11	44
TRURO	2	5	2	0	1	0	1	1	0	0	0	4	16
TYNGBOROUGH	14	22	3	1	0	2	1	0	1	1	0	7	52
TYRINGHAM	1	1	0	0	0	0	0	0	0	0	0	0	2
UPTON	15	18	4	1	0	0	2	2	0	1	0	7	50
UXBRIDGE	18	20	5	3	0	4	5	4	2	0	1	14	76
WAKEFIELD	72	60	17	2	0	10	13	6	1	1	4	51	239
WALES	3	1	0	0	0	0	1	0	0	0	0	1	6
WALPOLE	47	52	9	2	1	4	4	3	2	0	0	36	160
WALTHAM	136	136	39	6	8	29	18	14	6	8	7	99	506
WARE	39	30	2	4	4	7	5	4	0	1	0	14	107
WAREHAM	79	61	16	1	8	7	8	4	3	1	0	48	236

WARREN	11	11	1	0	1	1	3	1	0	0	4	34
WARWICK	1	4	0	0	0	0	0	0	0	0	2	8
WASHINGTON	4	1	2	0	1	0	0	0	0	0	3	11
WATERTOWN	98	91	25	1	24	10	10	3	1	1	57	325
WAYLAND	26	15	3	0	4	2	2	0	0	1	10	65
WEBSTER	65	60	18	5	8	18	7	0	0	3	51	239
WELLESLEY	69	56	13	0	1	7	2	1	0	3	44	209
WELLFLEET	4	9	1	0	3	0	2	0	0	0	6	26
WENDELL	2	0	0	0	0	1	1	0	0	0	0	3
WENHAM	5	9	2	0	0	0	0	0	0	0	2	19
WEST BOYLSTON	17	12	1	1	0	3	1	2	1	0	15	53
WEST BRIDGEWATER	14	13	3	0	1	2	4	1	0	0	9	47
WEST BROOKFIELD	13	4	2	0	0	3	1	0	0	0	5	28
WEST NEWBURY	9	8	0	0	0	0	0	0	0	0	2	19
WEST SPRINGFIELD	100	78	18	7	3	16	16	4	3	2	68	319
WEST STOCKBRIDGE	6	1	2	1	0	0	0	0	0	0	2	12
WEST TISBURY	2	6	0	0	0	0	0	0	0	0	2	10
WESTBOROUGH	30	32	11	0	2	14	6	3	0	1	28	129
WESTFIELD	117	92	22	7	5	14	16	3	5	3	62	348
WESTFORD	33	26	5	0	1	7	3	2	0	2	11	90
WESTHAMPTON	2	2	1	0	0	1	0	1	0	0	1	8
WESTMINSTER	10	12	2	1	1	3	3	3	1	0	6	43
WESTON	30	23	9	1	1	7	2	1	0	0	17	91
WESTPORT	32	49	7	3	3	2	0	3	1	1	14	117
WESTWOOD	44	31	10	3	1	5	9	1	2	2	24	133
WEYMOUTH	145	141	28	7	3	27	20	12	9	3	89	488
WHATELY	6	1	0	1	0	1	0	0	0	0	2	11
WHITMAN	21	23	4	1	1	2	9	2	1	0	14	79
WILBRAHAM	40	29	10	2	3	1	4	3	0	3	19	114
WILLIAMSBURG	6	7	2	0	0	2	1	0	0	0	6	24
WILLIAMSTOWN	20	22	9	0	1	7	2	2	1	2	13	79
WILMINGTON	35	35	11	1	3	3	4	2	0	2	25	124
WINCHENDON	22	12	3	2	1	4	3	0	1	0	10	59
WINCHESTER	64	47	14	0	3	8	4	7	4	1	37	190
WINDSOR	1	0	0	0	0	0	0	0	0	1	1	3
WINTHROP	58	52	9	1	4	17	9	4	3	0	47	204
WOBURN	106	84	20	1	4	15	19	7	1	2	46	309
WORCESTER	664	413	103	17	20	126	104	64	21	9	470	2027
WORTHINGTON	3	2	1	0	0	1	0	0	0	0	2	9
WRENTHAM	28	22	3	1	0	8	1	3	0	0	19	86
YARMOUTH	90	104	34	2	8	21	15	6	3	9	67	364
STATE TOTAL	17585	13981	3373	549	788	2776	2324	1334	586	385	464	55537

TABLE C-14B
SELECTED CAUSES OF DEATH BY COUNTY OF RESIDENCE
1993

	HEART DISEASES (390-398, 402, 404-429)	MALIGNANT NEOPLASMS (140-209)	CEREBROVASCULAR DISEASE (430-438)	MOTOR VEHICLE ACCIDENTS(810-825)	OTHER ACCIDENTS (800-807,826-949)	INFLUENZA & PNEUMONIA (480-487)	CHRONIC OBSTRUCTIVE PULMONARY (490-496)	DIABETES MELLITUS (250)	CHRONIC LIVER DIS. & CIRRHOSIS (571)	ATHEROSCLEROSIS (440)	SUICIDE (950-959)	ALL OTHER CAUSES	TOTAL
BARNSTABLE	696	619	162	25	41	124	112	53	22	43	19	443	2359
BERKSHIRE	510	383	109	14	23	80	71	41	18	12	13	274	1548
BRISTOL	1734	1195	315	64	59	203	181	146	60	68	44	898	4967
DUKES	29	39	12	0	3	8	2	2	1	1	2	23	122
ESSEX	2152	1650	381	56	85	270	247	129	73	46	46	1167	6302
FRANKLIN	197	154	55	15	8	43	31	20	8	2	9	140	682
HAMPOEN	1529	1076	292	56	64	226	228	112	46	45	35	1004	4713
HAMPSHIRE	378	284	71	13	25	64	64	25	9	4	13	206	1156
MIDDLESEX	3551	3070	735	97	161	615	477	266	105	65	111	2348	11601
NANTUCKET	19	23	5	0	1	2	3	1	0	0	1	18	73
NORFOLK	1746	1531	318	39	69	272	191	127	67	22	41	1112	5535
PLYMOUTH	1155	930	189	48	63	162	178	81	35	22	24	716	3603
SUFFOLK	1763	1483	321	49	98	327	226	143	76	17	40	1769	6312
MORCESTER	2126	1544	408	73	88	380	313	188	66	38	66	1294	6584
STATE TOTAL	17585	13981	3373	549	788	2776	2324	1334	586	385	464	11412	55557

TABLE C-15
RESIDENT DEATHS BY CAUSE, SEX, AND RACE
1993

ICD. LIST NUMBER	CAUSE OF DEATH	T O T A L S				W H I T E				B L A C K				O T H E R			
		TOT	MALE	FEM		TOT	MALE	FEM		TOT	MALE	FEM		TOT	MALE	FEM	
*001	139 I. INFECTIVE AND PARASITIC DISEASES	1790	1122	668		1554	959	595		216	147	69		20	16	4	
001-009	INTestinal Infectious Diseases	36	15	21		36	15	21		0	0	0		0	0	0	
004	OTHER SALMONELLA INFECTIONS	2	1	1		2	1	1		0	0	0		0	0	0	
008	INTESTINAL INFECTIONS DUE TO OTHER ORGANISMS	30	12	18		30	12	18		0	0	0		0	0	0	
009	ILL-DEFINED INTESTINAL INFECTIONS	4	2	2		4	2	2		0	0	0		0	0	0	
010-018	TUBERCULOSIS	25	15	10		21	13	8		0	0	0		0	0	0	
011	PULMONARY TUBERCULOSIS	23	14	9		20	13	7		0	0	0		0	0	0	
012	OTHER RESPIRATORY TUBERCULOSIS	1	1	0		0	0	0		0	0	0		0	0	0	
017	TUBERCULOSIS OF OTHER ORGANS	1	0	1		1	0	1		0	0	0		0	0	0	
020-027	ZOOONOTIC BACTERIAL DISEASES	3	2	1		3	2	1		0	0	0		0	0	0	
027	OTHER ZOOONOTIC BACTERIAL DISEASES	3	2	1		3	2	1		0	0	0		0	0	0	
030-041	OTHER BACTERIAL DISEASES	739	307	432		691	281	410		42	21	21		6	5	1	
031	DISEASES DUE TO OTHER MYCOBACTERIA	9	7	2		9	7	2		0	0	0		0	0	0	
035	ERYSIPELAS	1	0	1		1	0	1		0	0	0		0	0	0	
036	MENINGOCOCCAL INFECTION	5	3	2		3	2	1		2	1	1		0	0	0	
038	SEPTICEMIA	710	289	421		666	265	401		38	19	19		6	5	1	
039	ACTINOMYCOTIC INFECTION	2	2	0		2	2	0		0	0	0		0	0	0	
040	OTHER BACTERIAL DISEASES	4	2	2		4	2	2		0	0	0		0	0	0	
041	BACTERIAL INF IN COND CE & OF UNSPECF SITE	8	4	4		6	3	3		2	1	1		0	0	0	
042-044	AIDS, ARC AND ARV	777	663	114		612	540	72		160	118	42		5	5	0	
042	AIDS	735	635	100		586	519	67		144	111	33		5	5	0	
043	ARC, AIDS-LIKE SYNDROME	3	3	0		2	2	0		1	1	0		0	0	0	
044	OTHER HIV INFECTION	39	25	14		24	19	5		15	6	9		0	0	0	
045-049	POLIOHYELITIS AND OTHER ENTEROVIRUS DIS. OF CENTRAL NERVOUS SYSTEM	8	6	2		8	6	2		0	0	0		0	0	0	
046	SLOW VIRUS INFECTION OF CNS	6	5	1		6	5	1		0	0	0		0	0	0	
049	OTHER NON-ARTHOPOD-BORNE VIRAL DIS OF CNS	2	1	1		2	1	1		0	0	0		0	0	0	
050-057	VIRAL DISEASES ACCOMPANIED BY EXANTHEM	8	6	2		7	5	2		1	1	0		0	0	0	
052	CHICKENPOX	2	1	1		1	0	1		1	1	0		0	0	0	
053	HERPES ZOSTER	3	2	1		3	2	1		0	0	0		0	0	0	
054	HERPES SIMPLEX	3	3	0		3	3	0		0	0	0		0	0	0	
070-079	OTHER VIRAL DISEASES	92	56	36		85	50	35		4	3	1		3	3	0	
070	VIRAL HEPATITIS	54	38	16		49	34	15		2	1	1		3	3	0	
078	OTHER DIS DUE TO VIRUSES & CHLAMYDIAE	19	11	8		18	10	8		1	1	0		0	0	0	
079	VIRAL INF IN COND CE & OF UNSPECIFIED SITE	19	7	12		18	6	12		1	1	0		0	0	0	
090-099	SYPHILIS AND OTHER VENEREAL DISEASES	2	1	1		2	1	1		0	0	0		0	0	0	
090	CONGENITAL SYPHILIS	1	0	1		1	0	1		0	0	0		0	0	0	
094	NEUROSYPHILIS	1	1	0		1	1	0		0	0	0		0	0	0	
110-118	MYCOSES	47	25	22		43	22	21		2	2	0		2	1	1	
112	CANDIDIASIS	11	6	5		11	6	5		0	0	0		0	0	0	
115	HISTOPLASMOIS	1	0	1		1	0	1		0	0	0		0	0	0	
117	OTHER MYCOSES	35	19	16		31	16	15		2	2	0		2	1	1	
120-129	HELMINTHIASES	1	1	0		1	1	0		0	0	0		0	0	0	
127	OTHER INTESTINAL HELMINTHIASES	1	1	0		1	1	0		0	0	0		0	0	0	
130-136	OTHER INFECTIVE AND PARASITIC DISEASES	37	14	23		30	12	18		7	2	5		0	0	0	
135	SARCIDOSIS	7	1	6		3	0	3		4	1	3		0	0	0	
136	OTHER & UNSPECIFIED INFECTIOUS & PARASITIC DISEASES	30	13	17		27	12	15		3	1	2		0	0	0	
137-139	LATE EFFECTS OF INFECTIOUS AND PARASITIC DISEASES	15	11	4		15	11	4		0	0	0		0	0	0	
137	LATE EFFECTS OF TUBERCULOSIS	7	4	3		7	4	3		0	0	0		0	0	0	

TABLE C-15

1993

ICD. LIST NUMBER	CAUSE OF DEATH I. INFECTIVE AND PARASITIC DISEASES (CONTINUED)	T O T A L S				W H I T E				B L A C K				O T H E R			
		TOT		FEM		TOT		FEM		TOT		FEM		TOT		FEM	
		MALE	FEM	MALE	FEM	MALE	FEM	MALE	FEM	MALE	FEM	MALE	FEM	MALE	FEM		
138	LATE EFFECTS OF ACUTE POLIOMYELITIS	6	5	1		6	5	1		0	0	0	0	0	0	0	
139	LATE EFFECTS OF OTH INFECT & PARASITIC DISEASES	2	2	0		2	2	0		0	0	0	0	0	0	0	
*140-239	II. NEOPLASMS	14201	7024	7177		13651	6718	6933		4443	250	193	106	55	51		
140-149	MALIGNANT NEOPLASM OF LIP, ORAL CAVITY AND PHARYNX	195	139	56		183	128	55		5	5	0	7	6	1		
140	MALIG NEOPLASM LIP	2	2	0		2	2	0		0	0	0	0	0	0	0	
141	MALIG NEOPLASM TONGUE	52	39	13		51	38	13		1	1	0	0	0	0	0	
142	MALIG NEOP MAJOR SALIVARY GLANDS	12	5	7		11	4	7		1	1	0	0	0	0	0	
143	MALIG NEOPLASM GUM	2	0	2		2	0	2		0	0	0	0	0	0	0	
144	MALIG NEOPLASM FLOOR OF MOUTH	4	2	2		4	2	2		0	0	0	0	0	0	0	
145	MALIG NEOPLASM OTHER & UNSPECF PARTS OF MOUTH	28	21	7		28	21	7		0	0	0	0	0	0	0	
146	MALIG NEOPLASM OROPHARYNX	19	13	6		15	10	5		1	1	0	3	2	1		
147	MALIG NEOPLASM NASOPHARYNX	23	19	4		19	15	4		0	0	0	4	4	0		
148	MALIG NEOPLASH HYPOPHARYNX	15	10	5		15	10	5		0	0	0	0	0	0	0	
149	MALIG NEOP OTH SITES W/IN LIP, ORAL CAVITY, PHARYNX	38	28	10		36	26	10		2	2	0	0	0	0	0	
150-159	MALIGNANT NEOPLASM OF DIGESTIVE ORGANS AND PERITONEUM	3453	1732	1721		3300	1653	1647		121	65	56	31	13	10		
150	MALIG NEOPLASM ESOPHAGUS	273	190	83		259	179	80		13	11	2	1	0	1		
151	MALIG NEOPLASM STOMACH	386	211	175		359	196	163		19	10	9	7	4	3		
152	MALIG NEOPLASM SMALL INTESTINE INCLUDING DUODENUM	35	15	20		34	14	20		1	1	0	0	0	0		
153	MALIG NEOPLASM COLON	1378	617	761		1329	593	731		42	17	25	7	2	5		
154	MALIG NEOPLASM RECTUM, RECTOSIGMOID JUNCT, ANUS	295	169	126		286	162	124		9	7	2	0	0	0		
155	MALIG NEOPLASM LIVER & INTRAHEPATIC BILE DUCTS	239	143	96		225	134	91		7	6	1	7	3	4		
156	MALIG NEOPLASM OF GALLBLADDER & EXTRAHEPATIC BILE DUCTS	113	42	71		111	40	71		2	2	0	0	0	0		
157	MALIG NEOPLASM PANCREAS	673	317	356		637	303	334		27	10	17	9	4	5		
158	MALIG NEOPLASM RETROPERITONEUM & PERITONEUM	7	4	3		7	4	3		0	0	0	0	0	0		
159	MALIG NEOP OTH SITES W/IN DIGESTIVE ORGS/PERITONEUM	54	24	30		53	23	30		1	1	0	0	0	0		
160-165	MALIGNANT NEOPLASM OF RESPIRATORY AND INTRATHORACIC ORGANS	3754	2123	1831		3623	2032	1591		105	72	33	26	19	7		
160	MALIG NEOPLASM NASAL CAVITIES, MIDDLE EAR, SINUSES	13	6	7		12	5	7		1	1	0	0	0	0		
161	MALIG NEOPLASM LARYNX	114	93	21		111	90	21		2	2	0	1	1	0		
162	MALIG NEOPLASM TRACHEA, BRONCHUS, LUNG	3612	2013	1599		3486	1926	1560		101	69	32	25	18	7		
163	MALIG NEOPLASM PLEURA	4	4	0		4	4	0		0	0	0	0	0	0		
164	MALIG NEOPLASM THYRUS, HEART, MEDIASTINUM	11	7	4		10	7	3		1	0	1	0	0	0		
170-175	MALIGNANT NEOPLASM OF BONE, CONNECTIVE TISSUE, SKIN, AND BREAST	1664	239	1425		1612	236	1376		44	3	41	8	0	8		
170	MALIG NEOPLASM BONE & ARTICULAR CARTILAGE	18	11	7		16	11	5		2	0	2	0	0	0		
171	MALIG NEOPLASM CONNECTIVE & OTH SOFT TISSUE	99	53	46		98	52	46		1	1	0	0	0	0		
172	MALIG MELANOMA OF SKIN	200	123	77		195	122	73		4	1	3	1	0	1		
173	OTHER MALIG NEOPLASM SKIN	63	45	18		61	44	17		2	1	1	0	0	0		
174	MALIG NEOPLASM FEMALE BREAST	1277	0	1277		1235	0	1235		35	0	35	7	0	7		
175	MALIG NEOPLASM MALE BREAST	7	7	0		7	7	0		0	0	0	0	0	0		
179-189	MALIGNANT NEOPLASM OF GENITOURINARY ORGANS	2065	1230	835		1986	1175	811		72	50	22	7	5	2		
179	MALIG NEOPLASM UTERUS, PART UNSPECIFIED	55	0	55		55	0	55		0	0	0	0	0	0		
180	MALIG NEOPLASH CERVIX UTERI	86	0	86		82	0	82		3	0	3	1	0	1		

1993

ICD. LIST NUMBER	CAUSE OF DEATH II. NEOPLASMS (CONTINUED)	T O T A L S			W H I T E			B L A C K			O T H E R		
		TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM
182	MALIG NEOPLASM BODY OF UTERUS	93	0	93	89	0	89	4	0	4	0	0	0
183	MALIG NEOPLASM OVARY & OTHER UTERINE ADNEXA	348	0	348	341	0	341	7	0	7	0	0	0
184	MALIG NEOPLASM OTH & UNSPECF FEMALE GENITAL ORGANS	43	0	43	41	0	41	2	0	2	0	0	0
185	MALIG NEOPLASM PROSTATE	832	832	0	783	783	0	45	45	0	4	4	0
186	MALIG NEOPLASM TESTIS	6	6	0	6	6	0	0	0	0	0	0	0
187	MALIG NEOPLASM PENIS & OTHER MALE GENITAL ORGANS	10	10	0	10	10	0	0	0	0	0	0	0
188	MALIG NEOPLASM BLADDER	301	200	101	296	198	98	4	2	2	1	0	1
189	MALIG NEOPLASM KIDNEY & OTH & UNSPECF URINARY ORGANS	291	182	109	283	178	105	7	3	4	1	1	0
190-199	MALIGNANT NEOPLASM OF OTHER AND UNSPECIFIED SITES	1517	791	726	1460	760	700	41	23	18	16	8	8
190	MALIG NEOPLASM EYE	7	3	4	6	3	3	1	0	1	0	0	0
191	MALIG NEOPLASM BRAIN	300	161	139	290	155	135	7	3	4	3	3	0
192	MALIG NEOP OTHER & UNSPECF PARTS NERVOUS SYSTEM	2	2	0	2	2	0	0	0	0	0	0	0
193	MALIG NEOPLASM THYROID GLAND	28	13	15	26	13	13	1	0	1	1	0	1
194	MALIG NEOPLASM OTH ENDOCRINE GLANDS & RELATED	16	11	5	15	11	4	1	0	1	0	0	0
195	MALIG NEOPLASM OTHER & ILL-DEFINED SITES	88	44	43	84	42	42	3	2	1	1	1	0
199	MALIG NEOPLASM W/O SPECIFICATION OF SITE	1076	556	520	1037	534	503	28	18	10	11	4	7
200-208	NEOPLASMS OF LYMPHATIC AND HEMATOPOIETIC TISSUE	1333	667	666	1271	633	638	52	30	22	10	4	6
200	LYMPHOSARCOMA & RETICULOSARCOMA	23	13	10	22	12	10	1	1	0	0	0	0
201	HODGKIN'S DISEASE	43	22	21	41	21	20	2	1	1	0	0	0
202	OTHER MALIG NEOP LYMPHOID & HISTIOCYTIC TISSUE	539	247	292	518	235	283	18	10	8	3	2	1
203	MULTIPLE MYELOMA & IMMUNOPROLIFERATIVE NEOPS	239	115	124	223	108	115	13	5	8	3	2	1
204	LYMPHOID LEUKEMIA	140	84	56	134	79	55	6	5	1	0	0	0
205	MYELOID LEUKEMIA	231	120	111	219	114	105	8	6	2	4	0	4
206	MONOCYTIC LEUKEMIA	2	2	0	2	2	0	0	0	0	0	0	0
207	OTHER SPECIFIED LEUKEMIA	4	1	3	4	1	3	0	0	0	0	0	0
208	LEUKEMIA OF UNSPECIFIED CELL TYPE	112	63	49	108	61	47	4	2	2	0	0	0
210-229	BENIGN NEOPLASMS	32	14	18	32	14	18	0	0	0	0	0	0
211	BENIGN NEOPLASM OTH PARTS DIGESTIVE SYSTEM	2	0	2	2	0	2	0	0	0	0	0	0
214	LIPOMA	1	1	0	1	1	0	0	0	0	0	0	0
216	BENIGN NEOPLASM SKIN	1	1	0	1	1	0	0	0	0	0	0	0
225	BENIGN NEOPLASM BRAIN & OTH PARTS NERVOUS SYSTEM	25	11	14	25	11	14	0	0	0	0	0	0
227	BENIGN NEOPLASM OTH ENDOCRINE GLANDS & RELATED	2	0	2	2	0	2	0	0	0	0	0	0
229	BENIGN NEOPLASM OTH & UNSPECIFIED SITES	1	1	0	1	1	0	0	0	0	0	0	0
235-238	NEOPLASMS OF UNCERTAIN BEHAVIOUR	43	20	23	43	20	23	0	0	0	0	0	0
235	NEOPLASM OF UNCERT BEHAV DIGESTIVE & RESPIRATORY SYS	3	1	2	3	1	2	0	0	0	0	0	0
237	NEOPLASM OF UNCERT BEHAV ENDOCRINE GLANDS & NERVOUS SYS	4	2	2	4	2	2	0	0	0	0	0	0
238	NEOPLASM UNCERT BEHAV OTHER & UNSPECF SITES & TISSUES	145	69	76	141	67	74	3	2	1	1	0	1
239-239	NEOPLASMS OF UNSPECIFIED NATURE	145	69	76	141	67	74	3	2	1	1	0	1

TABLE C-15

1993

ICD. LIST NUMBER	CAUSE OF DEATH	TOTALS				WHITE				BLACK				OTHER			
		TOT 1892	MALE 789	FEM 1103		TOT 1755	MALE 732	FEM 1023		TOT 125	MALE 50	FEM 75		TOT 12	MALE 7	FEM 5	
*240	III. ENDOCRINE, NUTRITIONAL, AND METABOLIC DISEASES																
240-246	DISORDERS OF THYROID GLAND	40	4	36		40	4	36		0	0	0		0	0	0	
242	THYROTOXICOSIS WITH OR W/O GOITER	3	0	3		3	0	3		0	0	0		0	0	0	
244	ACQUIRED HYPOTHYROIDISM	37	4	33		37	4	33		0	0	0		0	0	0	
250-259	DISEASES OF OTHER ENDOCRINE GLANDS	1350	581	769		1252	546	706		90	30	60		8	5	3	
250	DIABETES MELLITUS	1334	573	761		1240	540	700		87	29	58		7	4	3	
251	OTH DISORDERS OF PANCREATIC INTERNAL SECRETION	2	2	0		2	2	0		0	0	0		0	0	0	
252	DISORDERS OF PARATHYROID GLAND	1	0	1		1	0	1		0	0	0		0	0	0	
253	DISORDERS OF PITUITARY GLAND & HYPOTHALMIC CONTROL	8	4	4		5	3	2		3	1	2		0	0	0	
255	DISORDERS OF ADRENAL GLANDS	5	2	3		4	1	3		0	0	0		1	1	0	
260-269	NUTRITIONAL DEFICIENCIES	62	17	45		60	17	43		1	0	1		1	0	1	
260	KWASHIORKOR	2	0	2		2	0	2		0	0	0		0	0	0	
261	NUTRITIONAL MARASMUS	1	1	0		1	1	0		0	0	0		0	0	0	
263	OTH & UNSPEC PROTEIN-CALORIE MALNUTRITION	56	15	41		54	15	39		1	0	1		1	0	1	
269	OTHER NUTRITIONAL DEFICIENCIES	3	1	2		3	1	2		0	0	0		0	0	0	
270-279	OTHER METABOLIC AND IMMUNITY DISORDERS	440	187	253		403	165	238		34	20	14		3	2	1	
270	DISORDERS OF AMINO-ACID TRANSPORT & METABOLISM	1	1	0		1	1	0		0	0	0		0	0	0	
272	DISORDERS OF LIPOID METABOLISM	30	17	13		28	16	12		2	1	1		0	0	0	
273	DISORDERS OF PLASMA PROTEIN METABOLISM	12	5	7		12	5	7		0	0	0		0	0	0	
274	GOUT	2	2	0		2	2	0		0	0	0		0	0	0	
275	DISORDERS OF MINERAL METABOLISM	9	4	5		9	4	5		0	0	0		0	0	0	
276	DISORDERS FLUIDO, ELECTROLYTE, ACID-BASE BALANCE	234	66	168		227	65	162		7	1	6		0	0	0	
277	OTHER & UNSPECIFIED DISORDERS OF METABOLISM	55	26	29		50	23	27		3	1	2		2	2	0	
278	OBESITY & HYPERALIMENTATION	38	20	18		34	19	15		3	1	2		1	0	1	
279	DISORDERS INVOLVING THE IMMUNE MECHANISM	59	46	13		40	30	10		19	16	3		0	0	0	
*280	IV. DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS	238	101	137		229	94	135		7	5	2		2	2	0	
280	IRON DEFICIENCY ANEMIAS	1	0	1		1	0	1		0	0	0		0	0	0	
281	OTHER DEFICIENCY ANEMIAS	6	0	6		6	0	6		0	0	0		0	0	0	
282	HEREDITARY HEMOLYTIC ANEMIAS	7	3	4		5	2	3		2	1	1		0	0	0	
283	ACQUIRED HEMOLYTIC ANEMIAS	2	1	1		1	0	1		0	0	0		1	1	0	
284	APLASTIC ANEMIA	23	9	14		22	8	14		1	1	0		0	0	0	
285	OTHER AND UNSPECIFIED ANEMIAS	55	17	38		53	17	38		0	0	0		0	0	0	
286	COAGULATION DEFECTS	24	15	9		23	14	9		0	0	0		1	1	0	
287	PURPURA & OTHER HEMORRHAGIC CONDITIONS	31	16	15		28	14	14		3	2	1		0	0	0	
288	DISEASES OF WHITE BLOOD CELLS	13	6	7		12	5	7		1	1	0		0	0	0	
289	OTHER DISEASES OF BLOOD & BLOOD-FORMING ORGANS	76	34	42		76	34	42		0	0	0		0	0	0	

TABLE C-15 (CONTINUED)

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ICD. LIST NUMBER	CAUSE OF DEATH	T O T A L S			W H I T E			B L A C K			O T H E R		
		TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM
*290-319	V. MENTAL DISORDERS	943	386	557	909	371	538	32	15	17	2	0	2
290-294	ORGANIC PSYCHOTIC CONDITIONS	392	130	262	378	127	251	13	3	10	1	0	1
290	SENILE & PRESENILE ORGANIC PSYCHOTIC CONDITIONS	383	125	258	369	122	247	13	3	10	1	0	1
291	ALCOHOLIC PSYCHOSES	6	5	1	6	5	1	0	0	0	0	0	0
294	OTHER ORGANIC PSYCHOTIC CONDITIONS (CHRONIC)	3	0	3	3	0	3	0	0	0	0	0	0
295-299	OTHER PSYCHOSES	283	96	187	277	95	182	5	1	4	1	0	1
295	SCHIZOPHRENIC DISORDERS	11	5	6	11	5	6	0	0	0	0	0	0
296	AFFECTIVE PSYCHOSES	4	1	3	4	1	3	0	0	0	0	0	0
298	OTHER NONORGANIC PSYCHOSES	267	89	178	261	88	173	5	1	4	1	0	1
299	PSYCHOSES WITH ORIGIN SPECIFIC TO CHILDHOOD	1	1	0	1	1	0	0	0	0	0	0	0
300-316	NEUROSES, PERSONALITY DISORDERS, AND OTHER NONPSYCHOTIC DISORDERS	261	157	104	247	146	101	14	11	3	0	0	0
300	NEUROTIC DISORDERS	4	1	3	4	1	3	0	0	0	0	0	0
303	ALCOHOL DEPENDENCE SYNDROME	116	94	22	106	86	20	10	8	2	0	0	0
304	DRUG DEPENDENCE	6	5	1	6	5	1	0	0	0	0	0	0
305	NONDEPENDENT ABUSE OF DRUGS	33	29	4	29	26	3	4	3	1	0	0	0
307	SPECIAL SYMPTOMS OR SYNDROMES NEC	2	1	1	2	1	1	0	0	0	0	0	0
308	ACUTE REACTION TO STRESS	1	1	0	1	1	0	0	0	0	0	0	0
310	SPEC NONPSYCH MENTAL DIS DUE TO ORGANIC BRAIN DAMAGE	78	19	59	78	19	59	0	0	0	0	0	0
311	DEPRESSIVE DISORDER NEC	21	7	14	21	7	14	0	0	0	0	0	0
317-319	MENTAL RETARDATION	7	3	4	7	3	4	0	0	0	0	0	0
318	OTHER SPECIFIED MENTAL RETARDATION	1	0	1	1	0	1	0	0	0	0	0	0
319	UNSPECIFIED MENTAL RETARDATION	6	3	3	6	3	3	0	0	0	0	0	0
*320-389	VI. DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS	1358	602	756	1330	588	742	24	12	12	4	2	2
320-326	INFLAMMATORY DISEASES OF THE CENTRAL NERVOUS SYSTEM	35	17	18	33	17	16	1	0	1	1	0	1
320	BACTERIAL MENINGITIS	6	4	2	6	4	2	0	0	0	0	0	0
322	MENINGITIS OF UNSPECIFIED CAUSE	15	4	11	13	4	9	1	0	1	1	0	1
323	ENCEPHALITIS, MYELITIS & ENCEPHALOMYELITIS	5	3	2	5	3	2	0	0	0	0	0	0
324	INTRACRANIAL & INTRASPINAL ABSCESS	1	0	1	1	0	1	0	0	0	0	0	0
325	PHLEB & THROMBOPHLEB INTRACRANIAL VENOUS SINUSES	2	1	1	2	1	1	0	0	0	0	0	0
326	LATE EFF INTRACRANIAL ABSCESS OR PYOGENIC INFECTION	6	5	1	6	5	1	0	0	0	0	0	0
330-337	HEREDITARY AND DEGENERATIVE DISEASES OF NERVOUS SYSTEM	1031	453	578	1021	447	574	7	4	3	3	2	1
330	CEREBRAL DEGENERATIONS USUALLY MANIFEST IN CHILDHOOD	3	2	1	3	2	1	0	0	0	0	0	0
331	OTHER CEREBRAL DEGENERATIONS	602	197	405	600	196	404	1	0	1	1	1	0
332	PARKINSON'S DISEASE	281	172	109	277	169	108	3	2	1	1	1	0
333	OTH EXTRAPYRAMIDAL DISEASE & ABN MOVEMENT DISORDERS	26	13	13	25	13	12	1	0	1	0	0	0
334	SPINOCEREBELLAR DISEASE	4	3	1	4	3	1	0	0	0	0	0	0
335	ANTERIOR HORN CELL DISEASE	106	60	46	103	58	45	2	2	0	1	0	1
336	OTHER DISEASES OF SPINAL CORD	8	6	2	8	6	2	0	0	0	0	0	0
337	DISORDERS OF AUTONOMIC NERVOUS SYSTEM	1	0	1	1	0	1	0	0	0	0	0	0
340-349	OTHER DISORDERS OF THE CENTRAL NERVOUS SYSTEM	223	98	125	208	91	117	15	7	8	0	0	0
340	MULTIPLE SCLEROSIS	65	26	39	63	26	37	2	0	2	0	0	0
341	OTHER DEMYELINATING DISEASES OF CNS	2	1	1	2	1	1	0	0	0	0	0	0
342	HEMIPLEGIA	5	3	2	4	2	2	1	1	0	0	0	0
343	INFANTILE CEREBRAL PALSY	15	6	9	13	5	8	2	1	1	0	0	0

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ICD. LIST NUMBER	CAUSE OF DEATH VI. DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS (CONTINUED)	T O T A L S				W H I T E				B L A C K				O T H E R			
		T O T		M A L E		T O T		M A L E		T O T		M A L E		T O T		M A L E	
		TOT	MALE	FEM		TOT	MALE	FEM		TOT	MALE	FEM		TOT	MALE	FEM	
344	OTHER PARALYTIC SYNDROMES	9	4	5		9	4	5		0	0	0		0	0	0	
345	EPILEPSY	20	9	11		19	9	10		1	0	1		0	0	0	
346	OTHER CONDITIONS OF BRAIN	96	47	49		87	42	45		9	5	4		0	0	0	
349	OTHER & UNSPECIFIED DISORDERS OF NERVOUS SYSTEM	11	2	9		11	2	9		0	0	0		0	0	0	
350-359	DISORDERS OF PERIPHERAL NERVOUS SYSTEM	68	33	35		68	33	35		0	0	0		0	0	0	
355	MONONEURITIS LOWER LIMB	4	2	2		4	2	2		0	0	0		0	0	0	
356	HEREDITARY & IDIOPATHIC PERIPHERAL NEUROPATHY	17	7	10		17	7	10		0	0	0		0	0	0	
357	INFLAMMATORY & TOXIC NEUROPATHY	6	4	2		6	4	2		0	0	0		0	0	0	
358	MYONEURAL DISORDERS	21	8	13		21	8	13		0	0	0		0	0	0	
359	MUSCULAR DYSTROPHIES & OTHER MYOPATHIES	20	12	8		20	12	8		0	0	0		0	0	0	
360-389	DISEASES OF THE EAR AND MASTOID PROCESS	1	1	0		0	0	0		1	1	0		0	0	0	
362	SUPPURATIVE & UNSPECIFIED OTITIS MEDIA	1	1	0		0	0	0		1	1	0		0	0	0	
*390 459 VII. DISEASES OF THE CIRCULATORY SYSTEM		22401	10113	12288		21677	9746	11931		591	303	288		130	62	68	
390-392	ACUTE RHEUMATIC FEVER	3	1	2		3	1	2		0	0	0		0	0	0	
391	RHEUMATIC FEVER WITH HEART INVOLVEMENT	3	1	2		3	1	2		0	0	0		0	0	0	
393-398	CHRONIC RHEUMATIC HEART DISEASE	158	48	110		157	46	109		1	0	1		0	0	0	
394	DISEASES OF MITRAL VALVE	60	16	44		60	16	44		0	0	0		0	0	0	
395	DISEASES OF AORTIC VALVE	4	2	2		4	2	2		0	0	0		0	0	0	
396	DISEASES OF MITRAL AND AORTIC VALVES	25	10	15		25	10	15		0	0	0		0	0	0	
397	DISEASES OF OTHER ENDOCARDIAL STRUCTURES	11	2	9		11	2	9		0	0	0		0	0	0	
398	OTHER RHEUMATIC HEART DISEASE	58	18	40		57	18	39		1	0	1		0	0	0	
401-405	HYPERTENSIVE DISEASE	612	207	405		569	187	382		41	20	21		2	0	2	
401	ESSENTIAL HYPERTENSION	163	48	115		154	43	111		7	5	2		2	0	2	
402	HYPERTENSIVE HEART DISEASE	320	107	213		298	98	200		22	9	13		0	0	0	
403	HYPERTENSIVE RENAL DISEASE	91	39	52		80	33	47		11	6	5		0	0	0	
404	HYPERTENSIVE HEART & RENAL DISEASE	38	13	25		37	13	24		1	0	1		0	0	0	
410-414	ISCHEMIC HEART DISEASE	11484	5628	5856		11190	5468	5722		237	129	108		56	30	26	
410	ACUTE MYOCARDIAL INFARCTION	5217	2615	2602		5077	2550	2527		108	48	60		31	16	15	
411	OTH ACUTE & SUBACUTE FORMS OF ISCHEMIC HEART DIS	9	4	5		9	4	5		0	0	0		0	0	0	
412	OLD MYOCARDIAL INFARCTION	16	8	8		16	8	8		0	0	0		0	0	0	
413	ANGINA PECTORIS	36	14	22		35	14	21		0	0	0		1	0	1	
414	OTHER FORMS OF CHRONIC ISCHEMIC HEART DISEASE	6206	2987	3219		6053	2892	3161		129	81	48		24	14	10	
415-417	DISEASES OF PULMONARY CIRCULATION	244	107	137		228	100	128		14	6	8		2	1	1	
415	ACUTE PULMONARY HEART DISEASE	181	82	99		170	78	92		11	4	7		0	0	0	
416	CHRONIC PULMONARY HEART DISEASE	62	25	37		57	22	35		3	2	1		2	1	1	
417	OTHER DISEASES OF PULMONARY CIRCULATION	1	0	1		1	0	1		0	0	0		0	0	0	
420-429	OTHER FORMS OF HEART DISEASE	5338	2367	2971		5127	2258	2869		173	88	85		36	20	16	
420	ACUTE PERICARDITIS	1	0	1		1	0	1		0	0	0		0	0	0	
421	ACUTE & SUBACUTE ENDOCARDITIS	21	14	7		20	13	7		1	1	0		0	0	0	
422	ACUTE MYOCARDITIS	10	8	2		9	7	2		1	1	0		0	0	0	
423	OTHER DISEASES OF PERICARDIUM	18	8	10		16	7	9		2	1	1		0	0	0	
424	OTHER DISEASES OF ENDOCARDIUM	439	138	301		425	132	293		9	5	4		5	1	4	
425	CARDIOMYOPATHY	537	341	196		512	327	185		20	11	9		5	3	2	
426	CONDUCTION DISORDERS	36	17	19		36	17	19		0	0	0		0	0	0	
427	CARDIAC DYSRHYTHMIAS	1536	699	837		1472	670	802		51	23	28		11	5	6	

TABLE C-15 (CONTINUED)

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ICD. LIST NUMBER	CAUSE OF DEATH VII. DISEASES OF THE CIRCULATORY SYSTEM (CONTINUED)	T O T A L S			W H I T E			B L A C K			O T H E R		
		TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM
428	HEART FAILURE	1497	539	958									
429	ILL-DEFINED DESCRIPTIONS & COMPLICATIONS HEART DIS	1243	603	640	1460	522	938	31	13	18	6	4	2
430-438	CEREBROVASCULAR DISEASE	3373	1204	2169	1176	563	613	58	33	25	9	7	2
430	SUBARACHNOID HEMORRHAGE	144	58	86	3244	1148	2096	102	48	54	27	8	19
431	INTRACEREBRAL HEMORRHAGE	401	167	234	137	54	83	5	4	1	2	0	2
432	OTH & UNSPECIFIED INTRACRANIAL HEMORRHAGE	80	36	44	379	155	224	16	9	7	6	3	3
433	OCCLUSION & STENOSIS OF PRECEREBRAL ARTERIES	27	14	13	75	33	42	3	2	1	2	1	1
434	OCCLUSION OF CEREBRAL ARTERIES	411	140	271	26	14	12	1	0	1	0	0	0
435	TRANSIENT CEREBRAL ISCHEMIA	8	4	4	400	134	266	10	6	4	1	0	1
436	ACUTE BUT ILL-DEFINED CEREBROVASCULAR DISEASE	1733	574	1159	7	4	3	1	0	1	0	0	0
437	OTH & ILL-DEFINED CEREBROVASCULAR DISEASE	249	85	164	1681	551	1130	42	20	22	10	3	7
438	LATE EFFECTS OF CEREBROVASCULAR DISEASE	320	126	194	235	83	152	9	2	7	5	0	5
440-448	DISEASES OF ARTERIES, ARTERIOLES, AND CAPILLARIES	1095	508	587	304	120	184	15	5	10	1	1	0
440	ATHEROSCLEROSIS				1067	494	573	21	11	10	7	3	4
441	AORTIC ANEURYSM	385	140	245	382	140	242	2	0	2	1	0	1
442	OTHER ANEURYSM	18	11	7	426	253	173	8	7	1	3	2	1
443	OTHER PERIPHERAL VASCULAR DISEASE	166	63	103	16	11	5	2	0	2	0	0	0
444	ARTERIAL EMBOLISM & THROMBOSIS	38	10	28	159	60	99	5	3	2	2	0	2
446	POLYARTERITIS NODOSA & ALLIED CONDITIONS	19	9	10	38	10	28	0	0	0	0	0	0
447	OTHER DISORDERS OF ARTERIES & ARTERIOLES	30	12	18	16	8	8	2	0	2	1	1	0
448	DISEASE OF CAPILLARIES	2	1	1	28	11	17	2	1	1	0	0	0
451-459	DISEASES OF VEINS AND LYMPHATICS, AND OTHER DIS. OF CIRCULATORY SYS.	94	43	51	2	1	1	0	0	0	0	0	0
451	PHLEBITIS & THROMBOPHLEBITIS				92	42	50	2	1	1	0	0	0
452	PORTAL VEIN THROMBOSIS	16	10	6	16	10	6	0	0	0	0	0	0
453	OTHER VENOUS EMBOLISM & THROMBOSIS	1	1	0	1	1	0	0	0	0	0	0	0
454	VARICOSE VEINS OF LOWER EXTREMITIES	8	3	5	8	3	5	0	0	0	0	0	0
456	VARICOSE VEINS OF OTHER SITES	4	2	2	4	2	2	0	0	0	0	0	0
457	NONINFECTIOUS DISORDERS OF LYMPHATIC CHANNELS	9	6	3	8	6	2	1	0	1	0	0	0
458	HYPOTENSION	1	0	1	1	0	1	0	0	0	0	0	0
459	OTHER DISORDERS OF CIRCULATORY SYSTEM	30	13	17	30	13	17	0	0	0	0	0	0
		25	8	17	24	7	17	1	1	0	0	0	0
*460 519	VIII. DISEASES OF THE RESPIRATORY SYSTEM	5919	2720	3199	5765	2636	3129	119	65	54	32	18	14
460-466	ACUTE RESPIRATORY INFECTIONS	22	9	13	21	8	13	1	1	0	0	0	0
464	ACUTE LARYNGITIS & TRACHEITIS	4	3	1	3	2	1	1	1	0	0	0	0
465	ACUTE UPPER RESP INF MULTIPLE OR UNSPECF SITES	3	1	2	3	1	2	0	0	0	0	0	0
466	ACUTE BRONCHITIS AND BRONCHIOLITIS	15	5	10	15	5	10	0	0	0	0	0	0
470-478	OTHER DISEASES UPPER RESPIRATORY TRACT	9	4	5	9	4	5	0	0	0	0	0	0
473	CHRONIC SINUSITIS	2	1	1	2	1	1	0	0	0	0	0	0
478	OTHER DISEASES OF UPPER RESPIRATORY TRACT	7	3	4	7	3	4	0	0	0	0	0	0
480-487	PNEUMONIA AND INFLUENZA	2776	1182	1594	2708	1142	1566	52	33	19	13	6	7
480	VIRAL PNEUMONIA	6	2	4	6	2	4	0	0	0	0	0	0
481	PNEUMOCOCCAL PNEUMONIA	62	32	30	60	31	29	1	1	0	0	0	0
482	OTHER BACTERIAL PNEUMONIA	93	45	48	92	44	48	1	1	0	0	0	0
485	BRONCHOPNEUMONIA ORGANISM UNSPECIFIED	141	58	83	136	54	82	4	3	1	1	1	0
486	PNEUMONIA ORGANISM UNSPECIFIED	2443	1038	1405	2383	1004	1379	46	28	18	12	5	7

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ICD. LIST NUMBER	CAUSE OF DEATH VIII. DISEASES OF THE RESPIRATORY SYSTEM (CONTINUED)	T O T A L S			W H I T E			B L A C K			O T H E R		
		TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM
487	INFLUENZA	31	7	24	31	7	24	0	0	0	0	0	0
490-496	CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND ALLIED CONDITIONS	2324	1130	1194	2272	1102	1170	39	19	20	13	9	4
490	BRONCHITIS NOT SPECIF AS ACUTE OR CHRONIC												
491	CHRONIC BRONCHITIS	69	39	30	22	7	15	0	0	0	0	0	0
492	EMPHYSEMA	340	170	170	69	39	30	0	0	0	0	0	0
493	ASTHMA	100	28	72	336	168	168	4	2	2	0	0	0
494	BRONCHIECTASIS	25	7	18	89	25	64	8	1	7	3	2	1
495	EXTRINSIC ALLERGIC ALVEOLITIS	25	7	18	25	7	18	0	0	0	0	0	0
496	CHRONIC AIRWAY OBSTRUCTION NEC	1	1	0	1	1	0	0	0	0	0	0	0
500-508	PNEUMONITIS AND OTHER LUNG DISEASES	1767	878	889	1730	855	875	27	16	11	10	7	3
500	PNEUMONITIS	292	151	141	286	149	137	6	2	4	0	0	0
501	ASBESTOSIS	8	8	0	8	8	0	0	0	0	0	0	0
504	PNEUMONITIS DUE TO INHALATION OTHER DUST	1	0	1	0	0	0	1	0	1	0	0	0
507	PNEUMONITIS DUE TO SOLIDS & LIQUIDS	282	142	140	277	140	137	5	2	3	0	0	0
508	RESP CONDITIONS DUE TO OTH & UNSPEC EXT AGENTS	1	1	0	1	1	0	0	0	0	0	0	0
510-519	OTHER DISEASES OF RESPIRATORY SYSTEM	496	244	252	469	231	238	21	10	11	6	3	3
510	EMPHYSEMA	10	6	4	9	5	4	1	1	0	0	0	0
511	PLEURISY	24	8	16	22	6	16	2	2	0	0	0	0
512	PNEUMOTHORAX	12	7	5	11	6	5	1	1	0	0	0	0
513	ABSCESS OF LUNG & MEDIASTINUM	10	6	4	9	6	3	1	0	1	0	0	0
514	PULMONARY CONGESTION AND HYPOSTASIS	23	6	17	21	6	15	1	0	1	1	0	1
515	POSTINFLAMMATORY PULMONARY FIBROSIS	154	75	79	149	74	75	4	1	3	1	0	1
516	OTH ALVEOLAR & PARIETOALVEOLAR PNEUMONOPATHY	33	18	15	29	16	13	3	2	1	1	0	1
518	OTHER DISEASES OF LUNG	197	107	90	187	101	86	7	3	4	3	3	0
519	OTHER DISEASES OF RESPIRATORY SYSTEM	33	11	22	32	11	21	1	0	1	0	0	0
*520 579	IX. DISEASES OF THE DIGESTIVE SYSTEM	2117	983	1134	2034	931	1103	66	41	25	17	11	6
520-529	DISEASES OF ORAL CAVITY, SALIVARY GLANDS AND JAWS	3	0	3	3	0	3	0	0	0	0	0	0
527	DISEASES OF THE SALIVARY GLANDS	2	0	2	2	0	2	0	0	0	0	0	0
528	DIS ORAL SOFT TISSUES EXCL LESIONS GINGIVA & TONGUE	1	0	1	1	0	1	0	0	0	0	0	0
530-537	DISEASES OF ESOPHAGUS, STOMACH, AND DUODENUM	220	98	122	209	94	115	7	3	4	4	1	3
530	DISEASES OF ESOPHAGUS	50	19	31	47	18	29	3	1	2	0	0	0
531	GASTRIC ULCER	43	21	22	42	21	21	1	0	1	0	0	0
532	DUODENAL ULCER	43	20	23	43	20	23	0	0	0	0	0	0
533	PEPTIC ULCER SITE UNSPECF	49	21	28	43	18	25	3	2	1	3	1	2
534	GASTROJEJUNAL ULCER	2	1	1	2	1	1	0	0	0	0	0	0
535	GASTRITIS & DUODENITIS	22	11	11	22	11	11	0	0	0	0	0	0
537	OTHER DISORDERS OF STOMACH & DUODENUM	11	5	6	10	5	5	0	0	0	1	0	1
540-543	APPENDICITIS	8	4	4	8	4	4	0	0	0	0	0	0
540	ACUTE APPENDICITIS	6	3	3	6	3	3	0	0	0	0	0	0
541	APPENDICITIS, UNQUALIFIED	1	1	0	1	1	0	0	0	0	0	0	0
543	OTHER DISEASES OF APPENDIX	1	0	1	1	0	1	0	0	0	0	0	0
550-553	HERNIA OF ABDOMINAL CAVITY	33	14	19	33	14	19	0	0	0	0	0	0
550	INGUINAL HERNIA	3	2	1	3	2	1	0	0	0	0	0	0

TABLE C-15 (CONTINUED)

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ICD. LIST NUMBER	CAUSE OF DEATH IX. DISEASES OF THE DIGESTIVE SYSTEM (CONTINUED)	***** T O T A L S *****				***** W H I T E *****				***** B L A C K *****				***** O T H E R *****			
		T O T A L S		F E M		T O T A L S		F E M		T O T A L S		F E M		T O T A L S		F E M	
		TOT	MALE	FEM		TOT	MALE	FEM		TOT	MALE	FEM		TOT	MALE	FEM	
551	OTH HERNIA OF ABDOMINAL CAVITY WITH GANGRENE	2	1	1		2	1	1		0	0	0		0	0	0	
552	OTH HERNIA ABD CAVITY W OBSTRUCT BUT W/O GANGRENE	13	5	8		13	5	8		0	0	0		0	0	0	
553	OTH HERNIA ABD CAVITY W/O OBSTRUCT OR GANGRENE	15	6	9		15	6	9		0	0	0		0	0	0	
555-558	NONINFECTIVE ENTERITIS AND COLITIS	279	85	194		273	81	192		5	3	2		1	1	0	
555	REGIONAL ENTERITIS	16	7	9		16	7	9		0	0	0		0	0	0	
556	IDIOPATHIC PROCTOCOLITIS	10	6	4		10	6	4		0	0	0		0	0	0	
557	VASCULAR INSUFFICIENCY OF INTESTINE	210	61	149		205	58	147		4	2	2		1	1	0	
558	OTH NONINFECTIOUS GASTROENTERITIS & COLITIS	43	11	32		42	10	32		1	1	0		0	0	0	
560-569	OTHER DISEASES OF INTESTINE AND PERITONEUM	341	109	232		331	102	229		7	6	1		3	1	2	
560	INTESTINAL OBSTRUCTION W/O MENTION OF HERNIA	126	36	90		124	34	90		2	2	0		0	0	0	
562	DIVERTICULA OF INTESTINE	92	24	68		89	21	68		3	3	0		0	0	0	
564	FUNCTIONAL DIGESTIVE DISORDERS NEC	10	4	6		10	4	6		0	0	0		0	0	0	
566	ABSCESS OF ANAL AND RECTAL REGIONS	5	2	3		5	2	3		0	0	0		0	0	0	
567	PERITONITIS	44	22	22		42	22	20		1	0	1		1	0	1	
568	OTHER DISORDERS OF PERITONEUM	4	2	2		4	2	2		0	0	0		0	0	0	
569	OTHER DISORDERS OF INTESTINE	60	19	41		57	17	40		1	1	0		2	1	1	
570-579	OTHER DISEASES OF DIGESTIVE SYSTEM	1233	673	560		1177	636	541		47	29	18		9	8	1	
570	ACUTE & SUBACUTE NECROSIS OF LIVER	12	7	5		11	6	5		1	1	0		0	0	0	
571	CHRONIC LIVER DISEASE & CIRRHOSIS	586	370	216		559	352	207		16	9	2		2	2	0	
572	LIVER ABSCESS & SEQUELAE OF CHRONIC LIVER DISEASE	140	79	61		132	73	59		6	4	2		2	2	0	
573	OTHER DISORDERS OF LIVER	61	35	26		60	35	25		1	0	1		0	0	0	
574	CHOLELITHIASIS	30	8	22		29	7	22		1	1	0		0	0	0	
575	OTHER DISORDERS OF GALLBLADDER	49	27	22		48	26	22		0	0	0		1	1	0	
576	OTHER DISORDERS OF BILIARY TRACT	38	18	20		36	16	20		2	2	0		0	0	0	
577	DISEASES OF PANCREAS	53	24	29		51	24	27		2	0	2		0	0	0	
578	GASTROINTESTINAL HEMORRHAGE	260	103	157		247	95	152		9	5	4		4	3	1	
579	INTESTINAL MALABSORPTION	4	2	2		4	2	2		0	0	0		0	0	0	
*580	629 X. DISEASES OF THE GENITOURINARY SYSTEM	1217	487	730		1149	458	691		53	23	30		14	5	9	
580-589	NEPHRITIS AND NEPHROSIS	793	359	434		743	339	404		38	14	24		11	5	6	
580	ACUTE GLOMERULONEPHRITIS	2	1	1		2	0	1		0	0	0		0	0	0	
581	NEPHROTIC SYNDROME	3	0	3		3	0	3		0	0	0		0	0	0	
582	CHRONIC GLOMERULONEPHRITIS	24	10	14		24	10	14		0	0	0		0	0	0	
583	NEPHRITIS & NEPHROPATHY NOT SPECIF AS ACUTE/CHRONIC	10	3	7		10	3	7		0	0	0		0	0	0	
584	ACUTE RENAL FAILURE	120	54	66		112	51	61		4	1	3		4	2	2	
585	CHRONIC RENAL FAILURE	210	91	119		194	87	107		12	3	9		4	1	3	
586	RENAL FAILURE, UNSPECIFIED	421	200	221		395	187	208		22	10	12		3	2	1	
587	RENAL SCLEROSIS, UNSPECIFIED	2	0	2		2	0	2		0	0	0		0	0	0	
588	DISORDERS RESULTING FROM IMPAIRED RENAL FUNCTION	1	0	1		1	0	1		0	0	0		0	0	0	
590-599	OTHER DISEASES OF URINARY SYSTEM	416	124	292		399	116	283		14	8	6		3	0	3	
590	INFECTIONS OF KIDNEY	18	2	16		18	2	16		0	0	0		0	0	0	
591	HYDRONEPHROSIS	2	0	2		2	0	2		0	0	0		0	0	0	
592	CALCULUS OF KIDNEY & URETER	3	1	2		3	1	2		0	0	0		0	0	0	
593	OTHER DISORDERS OF KIDNEY & URETER	76	37	39		66	31	35		9	6	3		1	0	1	
595	CYSTITIS	2	1	1		2	1	1		0	0	0		0	0	0	
596	OTHER DISORDERS OF BLADDER	2	1	1		2	1	1		0	0	0		0	0	0	

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ICD. LIST NUMBER	CAUSE OF DEATH X. DISEASES OF THE GENITOURINARY SYSTEM (CONTINUED)	T O T A L S				W H I T E				B L A C K				O T H E R			
		T O T		M A L E		T O T		M A L E		T O T		M A L E		T O T		M A L E	
		313	82	231	306	80	226	5	2	3	2	3	2	3	2	0	2
599	OTHER DISORDERS OF URETHRA & URINARY TRACT	4	4	0	3	3	0	1	1	0	1	0	1	0	0	0	0
600-608	DISEASES OF MALE GENITAL ORGANS	2	2	0	1	1	0	1	1	0	1	0	1	0	0	0	0
600	HYPERPLASIA OF PROSTATE	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0
604	ORCHITIS & EPIDIDYMITIS	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0
608	OTHER DISORDERS OF MALE GENITAL ORGANS	2	0	2	2	0	2	0	0	0	0	0	0	0	0	0	0
610-611	DISORDERS OF BREAST	2	0	2	2	0	2	0	0	0	0	0	0	0	0	0	0
611	OTHER DISORDERS OF BREAST	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0
614-616	INFLAMMATORY DISEASE OF FEMALE PELVIC ORGANS	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0
614	INFLAMM DIS OVARY,FALLP TUBE, PELV TISS,PERITONEUM	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0
617-629	OTHER DISORDERS OF FEMALE GENITAL TRACT	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0
627	MENOPAUSAL & POSTMENOPAUSAL DISORDERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*630 676	XI. COMPLICATIONS OF PREGNANCY, CHILDBIRTH, AND PUERPERIUM	55	21	34	51	20	31	4	1	3	0	0	0	0	0	0	0
*680 709	XII. DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE	26	9	17	24	9	15	2	0	2	0	0	0	0	0	0	0
680-686	INFECTIONS OF SKIN AND SUBCUTANEOUS TISSUE	21	8	13	20	8	12	1	0	1	0	1	0	0	0	0	0
682	OTHER CELLULITIS & ABSCESS	5	1	4	4	1	3	1	0	1	0	1	0	0	0	0	0
686	OTH LOCAL INFECTIONS SKIN & SUBCUTANEOUS TISSUE	4	3	1	4	3	1	0	0	0	0	0	0	0	0	0	0
690-698	OTHER INFLAMMATORY CONDITIONS OF SKIN AND SUBCUTANEOUS TISSUE	2	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0
694	BULLOUS DERMATOSES	2	2	0	2	2	0	0	0	0	0	0	0	0	0	0	0
695	ERYTHEMATOUS CONDITIONS	25	9	16	23	8	15	2	1	1	2	1	0	0	0	0	0
700-709	OTHER DISEASES OF SKIN AND SUBCUTANEOUS TISSUE	25	9	16	23	8	15	2	1	1	0	0	0	0	0	0	0
707	CHRONIC ULCER OF SKIN	154	42	112	145	39	106	7	2	5	2	1	1	1	1	1	1
*710 739	XIII. DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE	106	18	88	100	17	83	5	1	4	1	4	1	0	1	0	1
710-719	ARTHRITIS AND RELATED DISORDERS	56	6	50	50	5	45	5	1	4	1	4	1	0	1	0	1
710	DIFFUSE DISEASES OF CONNECTIVE TISSUE	3	2	1	3	2	1	0	0	0	0	0	0	0	0	0	0
711	ARTHRITIS ASSOC WITH INFECTIONS	38	7	31	38	7	31	0	0	0	0	0	0	0	0	0	0
714	RHEUMATOID ARTHRITIS & OTH INFLM POLYARTHRITIS	6	2	4	6	2	4	0	0	0	0	0	0	0	0	0	0
715	OSTEOARTHRITIS & ALLIED DISORDERS	2	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0
716	OTHER & UNSPECIFIED ARTHROPATHIES	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0
719	OTHER & UNSPECIFIED DISORDERS OF JOINT DORSOPATHIES	3	2	1	2	1	1	0	0	0	0	0	0	0	0	0	0
720-724	SPONDYLOSIS & ALLIED DISORDERS	11	5	6	11	5	6	0	0	0	0	0	0	0	0	0	0
721	RHEUMATISM, EXCLUDING THE BACK	2	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0
725	POLYMYALGIA RHEUMATICA	2	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0
728	DISORDERS OF MUSCLE, LIGAMENT & FASCIA	5	2	3	5	2	3	0	0	0	0	0	0	0	0	0	0
729	OTHER DISORDERS OF SOFT TISSUES	4	2	2	4	2	2	0	0	0	0	0	0	0	0	0	0
730-739	OSTEOPATHIES CHRONOPATHIES & ACQUIRED MUSCULOSKELETAL DEFORMITIES	34	17	17	32	16	16	2	1	1	2	1	1	0	0	0	0

TABLE C-15 (CONTINUED)

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ICD. LIST NUMBER	CAUSE OF DEATH XIII. DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE (CONTINUED)	T O T A L S			W H I T E			B L A C K			O T H E R		
		TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM
730	OSTEOMYELITIS, PERIOSTITIS & OTH INFECTIONS OF BONE	18	10	8	16	9	7	2	1	1	0	0	0
731	OSTEITIS DEFORMANS & OSTEOPATHIES ASSOC W OTH DIS CE	4	3	1	4	3	1	0	0	0	0	0	0
733	OTHER DISORDERS OF BONE & CARTILAGE	9	1	8	9	1	8	0	0	0	0	0	0
737	CURVATURE OF SPINE	3	3	0	3	3	0	0	0	0	0	0	0
*740	XIV. CONGENITAL ANOMALIES	220	113	107	198	102	96	18	10	8	4	1	3
740	ANENCEPHALUS & SIMILAR ANOMALIES	4	1	3	4	1	3	0	0	0	0	0	0
741	SPINA BIFIDA	3	1	2	3	1	2	0	0	0	0	0	0
742	OTHER CONGENITAL ANOMALIES OF NERVOUS SYSTEM	26	14	12	25	13	12	1	1	0	0	0	0
745	BULBUS CORDIS ANOMS & ANOMS CARDIAC SEPTAL CLOSURE	27	12	15	26	12	14	0	0	0	1	0	1
746	OTHER CONGENITAL ANOMALIES OF HEART	38	17	21	33	14	19	4	2	2	1	1	0
747	OTHER CONGENITAL ANOMS OF CIRCULATORY SYSTEM	18	14	4	15	12	3	3	2	1	0	0	0
748	CONGENITAL ANOMALIES OF RESPIRATORY SYSTEM	21	13	8	20	13	7	1	0	1	0	0	0
751	OTHER CONGENITAL ANOMS OF DIGESTIVE SYSTEM	5	1	4	5	1	4	0	0	0	0	0	0
753	CONGENITAL ANOMS OF URINARY SYSTEM	16	9	7	15	8	7	1	1	0	0	0	0
755	OTHER CONGENITAL ANOMS OF LIMBS	1	1	0	1	1	0	0	0	0	0	0	0
756	OTHER CONGENITAL MUSCULOSKELETAL ANOMALIES	13	7	6	10	6	4	2	1	1	1	0	1
-757	CONGENITAL ANOMS OF THE INTEGUMENT	1	1	0	1	1	0	0	0	0	0	0	0
758	CHROMOSOMAL ANOMALIES	27	11	16	21	8	13	5	3	2	1	0	1
759	OTHER & UNSPECIFIED CONGENITAL ANOMALIES	20	11	9	19	11	8	1	0	1	0	0	0
*760	XV. CERTAIN CONDITIONS ORIGINATING IN PERINATAL PERIOD	275	147	128	208	110	98	60	33	27	7	4	3
760	NEBORN AFFECTED BY MAT CONDS REL/UNREL TO PREG	2	1	1	2	1	1	0	0	0	0	0	0
761	NEBORN AFFECTED BY MAT COMPLICATIONS OF PREG	41	28	13	33	21	12	7	6	1	1	1	0
762	NEBORN AFFECTO COMPLIC PLACENTA, CORD, MEMBRANE	21	12	9	16	9	7	5	3	2	0	0	0
765	DISORDERS REL TO SHORT GESTATION & UNSPECF LOW BIRTHWT	91	55	36	69	42	27	20	12	8	2	1	1
767	BIRTH TRAUMA	4	1	3	4	1	3	0	0	0	0	0	0
768	INTRAUTERINE HYPOXIA & BIRTH ASPHYXIA	11	6	5	7	3	4	4	3	1	0	0	0
769	RESPIRATORY DISTRESS SYNDROME	24	14	10	20	12	8	3	1	2	1	1	0
770	OTHER RESPIRATORY CONDITIONS OF NEBORN	33	12	21	23	7	16	9	4	5	1	1	0
771	INFECTIONS SPECIFIC TO THE PERINATAL PERIOD	10	4	6	6	3	3	4	1	3	0	0	0
772	NEONATAL HEMORRHAGE	7	2	5	7	2	5	0	0	0	0	0	0
773	HEMOLYTIC DIS OF NEBORN DUE TO ISOIMMUNIZATION	1	1	0	1	1	0	0	0	0	0	0	0
775	ENDOC/METAB DISTURBANCES SPECIFIC TO NEBORN	1	0	1	0	0	0	0	0	0	1	0	1
777	PERINATAL DISORDERS OF DIGESTIVE SYSTEM	9	5	4	6	4	2	3	1	2	0	0	0
778	CORD INVOLV INTEGUMENT/TEMP REGULATION OF NEBORN	4	0	4	3	0	3	1	0	1	0	0	0
779	OTH & ILL-DEFINED COND ORIGINATING IN PERINATAL PERIOD	16	6	10	11	4	7	4	2	2	1	0	1

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ICD, LIST NUMBER	CAUSE OF DEATH XVI. SYMPTOMS SIGNS, AND ILL-DEFINED CONDITIONS	T O T A L S		W H I T E		B L A C K		O T H E R					
		TOT 382	MALE 184	FEM 198	TOT 351	MALE 166	FEM 185	TOT 26	MALE 14	FEM 12	TOT 2	MALE 1	FEM 1
*780	799	XVII. EXTERNAL CAUSES OF INJURY AND POISONING											
780-789	SYMPTOMS	102	47	55	92	43	49	9	3	6	1	1	0
780	GENERAL SYMPTOMS	28	16	12	24	15	9	4	1	3	0	0	0
781	SYMPTOMS INVOLVING NERVOUS & MUSCULOSKELETAL SYS	1	1	0	1	1	0	0	0	0	0	0	0
782	SYMPTOMS INVOLVING SKIN & OTH INTEGUMENTARY TISSUE	1	0	1	1	0	1	0	0	0	0	0	0
783	SYMPTOMS RE NUTRITION, METABOLISM & DEVELOPMENT	2	0	2	2	0	2	0	0	0	0	0	0
784	SYMPTOMS INVOLVING HEAD & NECK	1	1	0	1	1	0	0	0	0	0	0	0
785	SYMPTOMS INVOLVING CARDIOVASCULAR SYSTEM	58	28	30	53	26	27	4	1	3	1	1	0
786	SYMPTOMS INVOLVING RESP SYS & OTHER CHEST SYMPTOMS	5	0	5	5	0	5	0	0	0	0	0	0
787	SYMPTOMS INVOLVING DIGESTIVE SYSTEM	1	0	1	1	0	1	0	0	0	0	0	0
789	OTHER SYMPTOMS INVOLVING ABDOMEN & PELVIS	5	1	4	4	0	4	1	1	0	0	0	0
790-795	NONSPECIFIC ABNORMAL FINDINGS	2	0	2	2	0	2	0	0	0	0	0	0
790	NONSPECIFIC FINDINGS ON EXAMINATION OF BLOOD	2	0	2	2	0	2	0	0	0	0	0	0
797-799	ILL-DEFINED AND UNKNOWN CAUSES OF MORBIDITY AND MORTALITY	278	137	141	257	123	134	17	11	6	1	0	1
797	SENILITY W/O MENTION OF PSYCHOSIS	11	1	10	11	1	10	0	0	0	0	0	0
798	SUDDEN DEATH, CAUSE UNKNOWN	64	42	22	56	36	20	8	6	2	0	0	0
799	OTH ILL-DEFINED & UNK CAUSES OF MORBIDITY/MORTALITY	203	94	109	190	86	104	9	5	4	1	0	1
*800	999	XVIII. EXTERNAL CAUSES OF INJURY AND POISONING											
800-807	RAILWAY ACCIDENTS	2395	1614	781	2176	1441	735	178	143	35	40	29	11
808	HIT BY ROLLING STOCK	9	8	1	6	5	1	3	3	0	0	0	0
805	HIT BY ROLLING STOCK	9	8	1	6	5	1	3	3	0	0	0	0
810-819	MOTOR VEHICLE TRAFFIC ACCIDENTS	543	358	185	514	339	175	17	11	6	12	8	4
810	M/V TRAFFIC ACCIDENT INVOLVING COLLISION W/ TRAIN	1	1	0	1	1	0	0	0	0	0	0	0
811	M/V TRAFFIC ACC INVOLV RE-ENTRANT COLLISION W/ OTH M/V	1	1	0	1	1	0	0	0	0	0	0	0
812	OTHER M/V TRAFFIC ACCIDENT INVOLVING COLLISION W/ M/V	173	109	64	166	104	62	4	2	2	3	3	0
813	M/V TRAFFIC ACCIDENT INVOLV COLLISION W/ OTH VEHICLE	13	11	2	13	11	2	0	0	0	0	0	0
814	M/V TRAFFIC ACCIDENT INVOLVING COLLISION W/ PEDESTRIAN	103	64	39	96	60	36	4	3	1	3	1	2
815	M/V TRAFFIC ACCIDENT INVOLVING COLLISION ON HIGHWAY	132	90	42	122	84	38	5	3	2	5	3	2
816	M/V TRAFF ACC DUE TO LOSS CONTROL W/O COLLISION ON HWY	45	31	14	43	29	14	2	2	0	0	0	0
818	OTHER NON-COLLISION M/V TRAFFIC ACCIDENT	3	3	0	3	3	0	0	0	0	0	0	0
819	M/V TRAFFIC ACCIDENT UNSPECIFIED NATURE	72	48	24	69	46	23	2	1	1	1	1	0
820-825	MOTOR VEHICLE NONTRAFFIC ACCIDENTS	6	6	0	6	6	0	0	0	0	0	0	0
821	NON-TRAFFIC ACCIDENT INVOLVING OTH OFF-ROAD M/V	821	1	0	1	1	0	0	0	0	0	0	0
823	OTH M/V NON-TRAFFIC ACC INVOLV COLLISION STATNRY OBJ	2	2	0	2	2	0	0	0	0	0	0	0
825	OTH M/V NON-TRAFFIC ACCIDENT OTH & UNSPECIF	3	3	0	3	3	0	0	0	0	0	0	0
826-829	OTHER ROAD VEHICLE ACCIDENTS	1	0	1	1	0	1	0	0	0	0	0	0
826	PEDAL CYCLE ACCIDENT	1	0	1	1	0	1	0	0	0	0	0	0
830-838	WATER TRANSPORT ACCIDENTS	11	11	0	11	11	0	0	0	0	0	0	0
830	ACCIDENT TO WATERCRAFT CAUSING SUBMERSTION	5	5	0	5	5	0	0	0	0	0	0	0
832	OTH ACCIDENTAL SUBMERS/DROWN IN WATER TRANSP ACCIDENT	1	1	0	1	1	0	0	0	0	0	0	0
838	OTH & UNSPECF WATER TRANSPORT ACCIDENT	5	5	0	5	5	0	0	0	0	0	0	0
840-845	AIR AND SPACE TRANSPORT ACCIDENTS	1	7	5	6	5	1	1	0	1	0	0	0
841	ACCIDENT TO POWERED AIRCRAFT, OTH & UNSPECF	6	4	2	5	4	1	1	0	1	0	0	0
844	OTH SPECIFIED AIR TRANSPORT ACCIDENTS	1	1	0	1	1	0	0	0	0	0	0	0
850-858	ACCIDENTAL POISONING BY DRUGS AND MEDICAMENTS	31	13	18	29	11	18	2	2	0	0	0	0
850	ACC POISON BY ANALGESICS, ANTIPIRETICS, ANTIRHEUMATICS	8	5	3	8	5	3	0	0	0	0	0	0

TABLE C-15 (CONTINUED)

1993

ICD. LIST NUMBER	CAUSE OF DEATH XVII. EXTERNAL CAUSES OF INJURY AND POISONING (CONTINUED)	T O T A L S			W H I T E			B L A C K			O T H E R		
		TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM
855	ACC POISON BY OTH DRUGS ACTING ON CNS & AUTONOM NS	7	5	2	5	3	2	2	2	0	0	0	
856	ACCIDENTAL POISONING BY ANTIBIOTICS	1	0	1	1	0	1	0	0	0	0	0	
858	ACCIDENTAL POISONING BY OTHER DRUGS	15	3	12	15	3	12	0	0	0	0	0	
860-869	ACCIDENTAL POISONING BY OTHER SUBSTANCES GASES AND VAPOURS	6	4	2	5	3	2	1	1	0	0	0	
868	ACC POISONING BY OTH UTILITY GAS & OTH CARBON MONOX	5	3	2	5	3	2	0	0	0	0	0	
869	ACC POISONING BY OTHER GASES & VAPORS	1	1	0	0	0	0	1	1	0	0	0	
870-876	MISADVENTURE TO PATIENTS DURING SURGICAL AND MEDICAL CARE	1	1	0	1	1	0	0	0	0	0	0	
870	ACC CUT, PUNCT, PERF, HEMORRHAGE DURING MEDICAL CARE	1	1	0	1	1	0	0	0	0	0	0	
878-879	SURGICAL & MEDICAL PROCEDURES AS CAUSE OF LATER COMPLICATION	35	15	20	34	15	19	1	0	1	0	0	
878	SURG OPER CAUSE ABNORM REACT/COMPL W/O MISADVENTURE	33	15	18	32	15	17	1	0	1	0	0	
879	OTH PROCED W/O MISADVENTURE CAUSING ABNORM REACTION	2	0	2	2	0	2	0	0	0	0	0	
880-888	ACCIDENTAL FALLS	339	172	167	332	167	165	5	4	1	2	1	
880	FALL ON OR FROM STAIRS OR STEPS	40	20	20	40	20	20	0	0	0	0	0	
881	FALL ON OR FROM LADDERS OR SCAFFOLDING	5	3	2	5	3	2	0	0	0	0	0	
882	FALL FROM OR OUT OF BUILDING OR OTHER STRUCTURE	36	24	12	34	22	12	2	2	0	0	0	
883	FALL INTO HOLE OR OTHER OPENING IN SURFACE	2	2	0	2	2	0	0	0	0	0	0	
884	OTHER FALL FROM ONE LEVEL TO ANOTHER	22	16	6	21	15	6	1	1	0	0	0	
885	FALL ON SAME LEVEL FROM SLIPPING,TRIPPING,STUMBLING	10	7	3	10	7	3	0	0	0	0	0	
886	FALL ON SAME LEVEL FROM COLLIS,PUSH,SHOVE BY OTH PERS	1	1	0	1	1	0	0	0	0	0	0	
887	FRACTURE, CAUSE UNSPECIFIED	144	55	89	143	54	89	0	0	0	1	1	
888	OTHER & UNSPECIFIED FALL	79	44	35	76	43	33	2	1	1	1	0	
890-899	ACCIDENTS CAUSED BY FIRES AND FLAMES	47	28	19	44	26	18	2	2	0	1	0	
890	CONFLAGRATION IN PRIVATE DWELLING	38	25	13	36	24	12	1	1	0	1	0	
891	CONFLAGRATION IN OTH & UNSPECF BUILDING/STRUCTURE	1	0	1	1	0	1	0	0	0	0	0	
893	ACCIDENT CAUSED BY IGNITION OF CLOTHING	5	2	3	4	1	3	1	1	0	0	0	
894	IGNITION OF HIGHLY INFLAMMABLE MATERIAL	1	1	0	1	1	0	0	0	0	0	0	
895	ACCIDENT CAUSED BY CONTROLLED FIRE IN PRIV DWELLING	1	0	1	1	0	1	0	0	0	0	0	
899	ACCIDENT CAUSED BY UNSPECIFIED FIRE	1	0	1	1	0	1	0	0	0	0	0	
900-909	ACCIDENTS CAUSED BY NATURAL AND ENVIRONMENTAL FACTORS	22	15	7	22	15	7	0	0	0	0	0	
901	EXCESSIVE COLD	16	10	6	16	10	6	0	0	0	0	0	
902	HIGH & LOW AIR PRESSURE & CHANGES IN AIR PRESSURE	1	1	0	1	1	0	0	0	0	0	0	
904	HUNGER, THIRST, EXPOSURE, & NEGLECT	4	3	1	4	3	1	0	0	0	0	0	
907	LIGHTNING	1	1	0	1	1	0	0	0	0	0	0	
910-915	ACCIDENTS CAUSED BY SUBMERSION SUFFOCATION & FOREIGN BODIES	146	81	65	139	79	60	3	1	2	4	1	
910	ACCIDENTAL DROWNING & SUBMERSION	44	24	20	37	22	15	3	1	2	4	1	
911	INHALATION, INGESTION OF FOOD CAUSING OBST/SUFFOC	27	12	15	27	12	15	0	0	0	0	0	
912	INHALATION, INGESTION OF OTH OBJECT CAUSE OBST/SUFFOC	57	31	26	57	31	26	0	0	0	0	0	
913	ACCIDENTAL MECHANICAL SUFFOCATION	18	14	4	18	14	4	0	0	0	0	0	
916-928	OTHER ACCIDENTS	105	73	32	101	71	30	2	1	1	2	1	
916	STRUCK ACCIDENTALLY BY FALLING OBJECT	5	5	0	5	5	0	0	0	0	0	0	
917	STRUCK AGAINST OR ACCIDENTALLY BY OBJECTS OR PERSONS	1	1	0	1	1	0	0	0	0	0	0	
918	CAUGHT ACCIDENTALLY IN OR BETWEEN OBJECTS	1	1	0	1	1	0	0	0	0	0	0	

TABLE C-15

1993

ICD. LIST NUMBER	CAUSE OF DEATH XVII. EXTERNAL CAUSES OF INJURY AND POISONING (CONTINUED)	T O T A L S		W H I T E		B L A C K		O T H E R		
		TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM
919	ACCIDENTS CAUSED BY MACHINERY	10	9	1	10	9	1	0	0	0
922	ACCIDENT CAUSED BY FIREARM MISSILE	7	7	0	7	7	0	0	0	0
923	ACCIDENT CAUSED BY EXPLOSIVE MATERIAL	1	1	0	1	1	0	0	0	0
924	ACCIDENT CAUSED BY STEAM,HOT,CAUSTIC,CORROSIVE SUBS	1	0	1	1	0	1	0	0	0
925	ACCIDENT CAUSED BY ELECTRIC CURRENT	6	4	2	6	4	2	0	0	0
928	OTH & UNSPECF ENVIRONMENTAL/ACCIDENTAL CAUSES	73	45	28	69	43	26	2	1	1
929-929	LATE EFFECTS OF ACCIDENTAL INJURY	27	18	9	25	17	8	1	0	1
929	LATE EFFECTS OF ACCIDENTAL INJURY	27	18	9	25	17	8	1	0	1
930-949	DRUGS MEDICAMENTS AND BIOLOGICAL SUB- STANCES IN THERAPY	1	0	1	1	0	1	0	0	0
935	ADVERSE EFFECTS ANALGESICS, ANTIPIRETTICS, ANTIRHEUMATICS	1	0	1	1	0	1	0	0	0
950-959	SUICIDE AND SELF-INFLICTED INJURY	464	349	115	437	326	111	18	15	3
950	SUICIDE & SELF-INFLC POISONING SOLID/LIQUID SUBS	87	34	53	85	33	52	1	0	1
951	SUICIDE & SELF-INFLC POISONING GASES-NOMESTIC USE	1	1	0	1	1	0	0	0	0
952	SUICIDE & SELF-INFLC POISONING OTHER GASES/VAPORS	40	30	10	39	29	10	1	1	0
953	SUICIDE & SELF-INFLC INJURY HANGING,STRANGUL,SUFFOC	137	110	27	123	99	24	9	7	2
954	SUICIDE & SELF-INFLC INJURY BY DROWNING	10	7	3	10	7	3	0	0	0
955	SUICIDE & SELF-INFLC INJURY BY FIREARMS/EXPLOSIVES	141	131	10	137	127	10	4	4	0
956	SUICIDE & SELF-INFLC INJURY BY CUTTING/PIERCING INST	13	12	1	12	11	1	1	1	0
957	SUICIDE & SELF-INFLC INJURY BY JUMPING-HIGH PLACE	21	14	7	17	10	7	2	2	0
958	SUICIDE & SELF-INFLC INJURY BY OTH & UNSPECIF MEANS	13	9	4	12	8	4	0	0	0
959	LATE EFFECTS OF SELF-INFLICTED INJURY	1	1	0	1	1	0	0	0	0
960-969	HOMICIDE AND INJURY PURPOSELY INFLICTED BY OTHER PERSONS	248	178	70	152	96	56	89	75	14
963	ASSAULT BY HANGING AND STRANGULATION	13	1	12	10	1	9	3	0	3
965	ASSAULT BY FIREARMS AND EXPLOSIVES	130	110	20	65	50	15	62	57	5
966	ASSAULT BY CUTTING AND PIERCING INSTRUMENT	58	41	17	40	26	14	16	13	3
967	CHILD BATTERING & OTHER MALTREATMENT	5	2	3	3	1	2	2	1	1
968	ASSAULT BY OTHER & UNSPECIFIED MEANS	39	21	18	33	17	16	4	2	2
969	LATE EFFECTS OF INJURY PURPOSELY INFLIC BY OTH PERSON	3	3	0	1	1	0	2	2	0
980-989	INJURY UNDETERMINED WHETHER ACCIDENTALLY OR PURPOSELY INFLICTED	346	279	67	310	248	62	33	28	5
980	POISONING BY SOLID/LIQ SUBS, UNDETERMINED INTENT	307	246	61	277	221	56	28	23	5
982	POISONING BY OTHER GASES, UNDETERMINED INTENT	2	2	0	2	2	0	0	0	0
984	DROWNING, UNDETERMINED INTENT	16	13	3	13	10	3	2	2	0
985	INJURY BY FIREARMS/EXPLOSIVES, UNDETERMINED INTENT	4	4	0	3	3	0	1	1	0
987	FALLING FROM HIGH PLACE, UNDETERMINED INTENT	5	5	0	5	5	0	0	0	0
988	INJURY BY OTH & UNSPECIF MEANS, UNDETERMINED INTENT	12	9	3	10	7	3	2	2	0
***	RESIDENT GRAND TOTALS	55557	26448	29109	53182	25111	28071	1969	1114	855
								394	214	180

TOTALS INCLUDE 12 OF UNKNOWN RACE: 9 MALES AND 3 FEMALES.

INFANT & NEONATAL DEATHS

SECTION D

INFANT AND NEONATAL DEATHS

The total number of resident infant deaths (deaths of children less than 1 year of age) decreased by 8.1% in Massachusetts from 569 in 1992 to 523 in 1993. The rate of infant deaths also decreased--from 6.5 infant deaths per 1,000 live births in 1992 to 6.2 infant deaths per 1,000 live births in 1993. As with live births and other deaths, all Massachusetts resident infant deaths are included regardless of the state in which they occurred. Neonatal deaths (deaths of infants under 28 days of age) decreased from 415 in 1992 to 375 in 1993, a decrease of 9.6%. The rate of neonatal deaths also decreased from 4.8 per 1,000 live births in 1992 to 4.4 per 1,000 live births in 1993.

INFANT DEATHS BY RACE

Beginning with the publication of 1989 data, several changes occurred in the method of calculating infant mortality rates (IMRs) by race and ethnicity. **These changes affect only the calculation of race/ethnic infant mortality rates; all other data presented in this publication are comparable to information from previous years.** These changes are the result of new federal recommendations for analyzing birth information, including infant mortality data, and the implementation of the new Massachusetts Standard Certificate of Death in 1989.

Using mother's race rather than infant's race:

The National Center for Health Statistics (NCHS) has recommended classifying births on the birth certificate according to the self-reported race of the mother. In the past, the race of the infant was assigned by combining information on the races of the mother and the father. However, based on changes in statistical conventions by the National Center for Health Statistics, Massachusetts now follows the new NCHS guidelines and calculates infant mortality using mother's race.

It is important to remember that the total number of infant deaths does not change--nor do the race/ethnic categories into which they are placed. (The death certificate only contains race/ethnic identifiers for the decedent, in this case the infant. It contains no race or ethnicity information about the mother.) Only the race/ethnic category used to classify births changes.

The impact of this change is to lower the white infant mortality rate and raise the black infant mortality rate. For example, using infant's race in 1993, the white IMR was 5.7 per 1,000 births; the black IMR was 12.5. Using the same death information, but classifying births according to mother's race, the white IMR decreases to 5.3 and the black IMR increases to 13.1. Thus, the gap between the white IMR and the black IMR increases from 119% to 146%, based solely on the change in method of computation.

The rates in the last column of the following table for 1993 should be used to compare white non-Hispanic, black non-Hispanic, Hispanic, and Asian infant mortality rates. Use the rates in the second column ("Classified by Race") to compare time trends in infant mortality rates prior to 1989.

Race Group	Classified by Race	Mother's Race/Ethnicity	Infant Mortality Rate
White	5.7	White non-Hispanic	5.3
Black	12.5	Black non-Hispanic	13.1
Other	3.5	Hispanic	9.3
		Asian	3.9
		Other	3.0
TOTAL	6.2	TOTAL	6.2

A Summary of the Impact of Classification Changes on 1993 IMRs

CHANGE	ADVANTAGES	IMPACT
Using mother's race rather than infant's race to categorize births	<ul style="list-style-type: none"> •Provides consistency with federal guidelines •Discontinues arbitrary combination of parents' race responses to classify infant race 	<ul style="list-style-type: none"> •Reduces comparability with previously published data for past years •Lowers the IMR for whites and raises the IMR for blacks, thus increasing the gap between white and black rates •Reduces comparability with other states and federal data that have not implemented this change

INFANT DEATHS BY AGE

Of all infant deaths, 58.3% (305 infants) died within the first week of life in 1993, compared to 60.8% (343 infants) in 1992. Of these, 44.6% (233 infants) died within the first 24 hours of life in 1993, compared to 48.5% (276 infants) in 1992.

INFANT DEATHS BY CAUSE

The leading cause of infant deaths was certain conditions originating in the perinatal period (medical conditions arising from approximately 28 weeks gestation to 28 days of age). These deaths accounted for 52.4% of all infant deaths in 1993, a decrease from the 1992 percentage of 56.9%. The second leading cause of infant deaths was congenital anomalies, which accounted for 19.5% of infant deaths. The third leading cause of infant deaths was sudden infant death syndrome (SIDS), which accounted for the same number of infant deaths (62) in 1993 as in 1992. However, the percentage of infant deaths from SIDS increased from 10.9% in 1992 to 11.9% in 1993.

NEONATAL MORTALITY BY BIRTHWEIGHT¹

The data on neonatal mortality by birthweight are provided from a file linking the birth and death records of infants less than 28 days old who were born to residents of Massachusetts during 1992, regardless of when the death occurred. Thus, deaths occurring in January of the subsequent year are included if the birth occurred in December of the data year. Deaths occurring in January of the data year are not included if the birth occurred in December of the previous year. Denominators are resident births of the data year. During the creation of this linked file, additional records may be located or changes made from previously published data which may slightly alter the number of resident births used to calculate mortality rates. In Figure D-3 and Table D-5, Massachusetts uses a file that links the death of each neonate to his/her own birth record. By linking the death record to the statistical portion of the birth record, the reasons for each neonate's death can be examined (e.g., the month that prenatal care began, the total number of prenatal visits, medical risk factors such as smoking and alcohol consumption, etc.). Please keep in mind, however, that the figures presented in Table D-5 cannot be directly compared to other tables in this report.

Neonatal mortality is highly correlated with low birthweight. Low birthweight (babies under 2,500 grams or 5 pounds, 8 ounces) accounted for 5.9% of all babies born in Massachusetts in 1992 and 72.0% of all neonatal deaths. As can be seen in Table D-5, of 115 infants weighing less than 500 grams at birth in 1992, 108 of these babies did not survive. This resulted in a neonatal mortality rate of 939.1 deaths for every 1,000 live births in that weight category. Neonatal mortality rates decrease dramatically as birthweight increases.

DEFINITIONS IMPORTANT FOR THIS SECTION INCLUDE:

INFANT DEATH

Death of a child whose age is less than one year (365 days).

NEONATAL DEATH

Death of a child whose age is less than 28 days.

POST NEONATAL DEATH

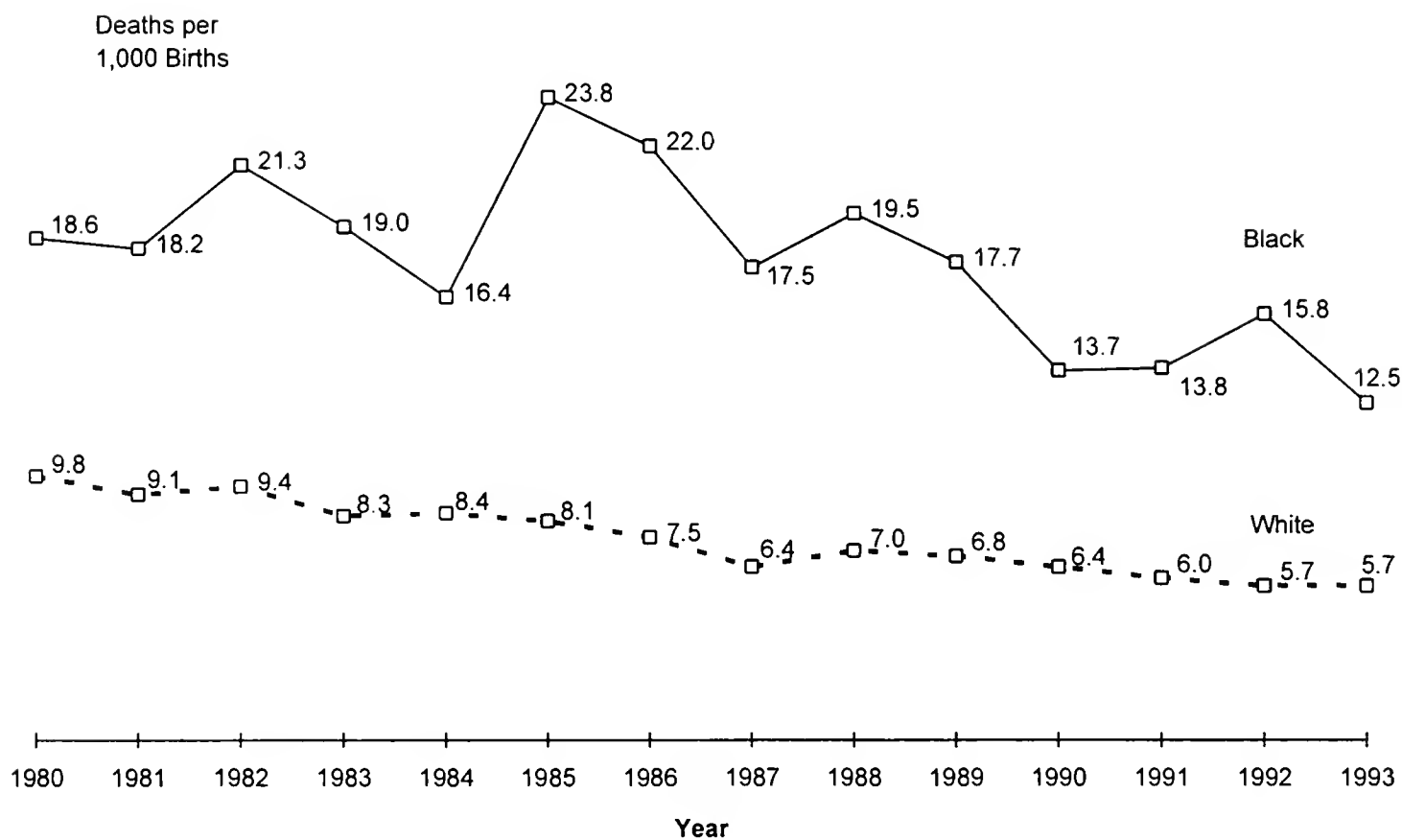
Death of a child whose age is at least 28 days, but less than one year.

RATES IMPORTANT FOR THIS SECTION INCLUDE:

INFANT MORTALITY RATE (IMR)	$\frac{\text{Number of Resident Deaths at Less than 1 Year of Age} \times 1,000}{\text{Total Resident Live Births}}$
NEONATAL MORTALITY RATE (NMR)	$\frac{\text{Number of Resident Deaths at Less than 28 Days of Age} \times 1,000}{\text{Total Resident Live Births}}$

¹ At publication time, the linked file for 1993 neonatal births and deaths was not complete.

Figure D-1
Infant Mortality Rates by Mother's Race^{1,2}
Massachusetts: 1980-1993

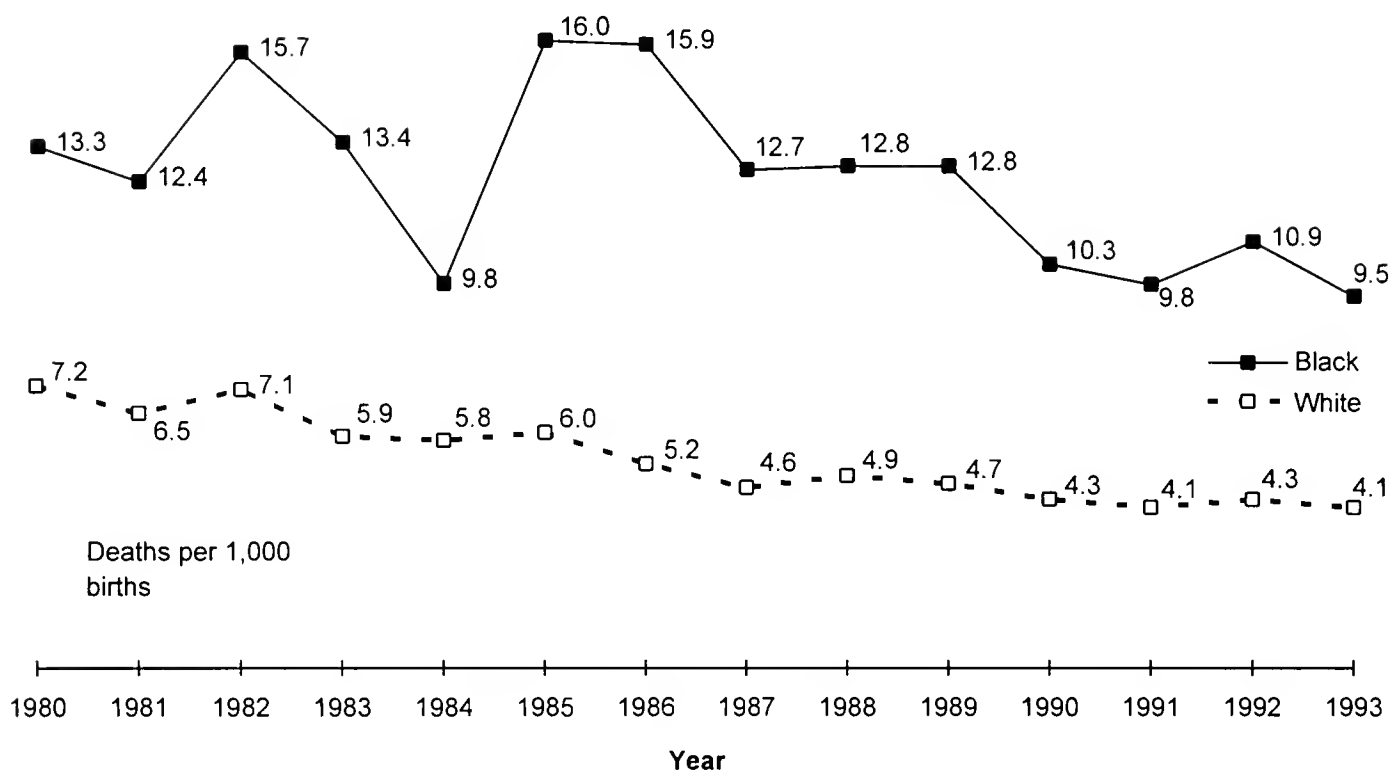


1. Infant: A child less than one year (365 days) old.

2. Deaths of infants of unknown race are excluded except for the total calculation.

For rate computations, infants of unknown race are allocated into the race categories according to the distribution of births of known races.

Figure D-2
Neonatal Mortality Rates by Mother's Race^{1,2}
Massachusetts: 1980-1993



1. Neonatal: Infants under 28 days old.

2. Deaths of infants of unknown race are excluded except for the total calculation.

For rate computations, infants of unknown race are allocated into the race categories according to the distribution of births of known races.

Table D-1. Infant and Neonatal Deaths**Massachusetts and United States Resident Deaths: 1970-1993**

Year	Infant Deaths (Deaths Under One Year)			Neonatal Deaths (Deaths Under 28 Days)		
	# of Deaths	Rate Per 1,000 Live Births		# of Deaths	Rate Per 1,000 Live Births	
		MA	U.S. ¹		MA	U.S.
1970	1,583	16.9	20.0	1,231	13.1	15.1
1971	1,462	16.8	19.1	1,130	13.0	14.2
1972	1,164	15.1	18.5	896	11.6	13.6
1973	1,104	15.2	17.7	861	11.9	13.0
1974	976	13.9	16.7	763	10.8	12.3
1975	903	13.2	16.1	678	9.9	11.6
1976	799	12.1	15.2	585	8.9	10.9
1977	806	11.8	14.1	616	9.1	9.9
1978	753	11.0	13.8	552	8.1	9.5
1979	760	10.8	13.1	564	8.0	8.9
1980	748	10.3	12.6	550	7.6	8.5
1981	710	9.6	11.9	510	6.9	8.0
1982	764	10.1	11.5	573	7.6	7.7
1983	682	9.0	11.2	482	6.3	7.3
1984	699	8.9	10.8	472	6.0	7.0
1985	745	9.1	10.6	538	6.6	7.0
1986	695	8.4	10.4	478	5.8	6.7
1987	608	7.2	10.0	432	5.1	6.5
1988	693	7.9	10.0	477	5.4	6.3
1989	697	7.6	9.8	479	5.2	6.3
1990	649	7.0	9.2	446	4.8	5.8
1991	577	6.5	8.9	400	4.5	5.6
1992	569	6.5	8.5	415	4.8	5.4
1993	523	6.2	8.3	375	4.4	5.4

¹ Source of U.S. data: Annual Summary of Births, Marriages, Divorces, and Deaths: United States", Monthly Vital Statistics Report, Provisional Data from the National Center for Health Statistics, U.S. Department of Health and Human Services.

Table D-2. Trends in Infant, Neonatal and Post Neonatal Mortality¹ by Race**Massachusetts Resident Deaths: 1980-1993**

Infant Deaths ²								
Total ³		White		Black		Other ⁴		
Year	#	Rate ⁵	#	Rate	#	Rate	#	Rate
1980	748	10.3	655	9.8	87	18.6	5	4.6
1981	710	9.6	616	9.1	85	18.2	8	6.1
1982	764	10.1	656	9.4	102	21.3	5	3.3
1983	682	9.0	579	8.3	89	19.0	12	7.4
1984	699	8.9	601	8.4	82	16.4	13	7.5
1985	745	9.1	608	8.1	126	23.8	11	6.1
1986	695	8.4	560	7.5	123	22.0	11	4.6
1987	608	7.2	486	6.4	110	17.5	12	4.5
1988	693	7.9	546	7.0	133	19.5	13	3.8
1989	697	7.6	549	6.8	131	17.7	17	4.8
1990	649	7.0	519	6.4	106	13.7	24	6.5
1991	576	6.5	460	6.0	102	13.8	14	3.9
1992	569	6.5	438	5.7	114	15.8	17	4.7
1993	523	6.2	423	5.7	87	12.5	13	3.5

Neonatal Deaths ⁶								
Total		White		Black		Other		
Year	#	Rate	#	Rate	#	Rate	#	Rate
1980	550	7.6	483	7.2	62	13.3	5	4.6
1981	510	6.9	442	6.5	59	12.4	5	3.8
1982	573	7.6	494	7.1	75	15.7	3	-- ⁷
1983	482	6.3	411	5.9	63	13.4	7	4.3
1984	472	6.0	411	5.8	49	9.8	8	4.6
1985	538	6.6	447	6.0	85	16.0	5	2.8
1986	478	5.8	383	5.2	89	15.9	5	2.1
1987	432	5.1	343	4.6	80	12.7	9	3.4
1988	477	5.4	383	4.9	87	12.8	6	1.8
1989	479	5.2	376	4.7	95	12.8	8	2.3
1990	446	4.8	347	4.3	80	10.3	19	5.1
1991	400	4.5	318	4.1	72	9.8	10	2.8
1992	415	4.8	325	4.3	79	10.9	11	3.1
1993	375	4.4	300	4.1	66	9.5	9	2.4

Table D-2. Trends in Infant, Neonatal and Post Neonatal Mortality¹ by Race

Massachusetts Resident Deaths: 1980-1993

Post Neonatal Deaths⁶

Year	Total		White		Black		Other	
	#	Rate	#	Rate	#	Rate	#	Rate
1980	198	2.7	172	2.6	25	5.3	0	--
1981	200	2.7	174	2.6	26	5.8	3	--
1982	191	2.5	162	2.3	27	5.6	2	--
1983	200	2.7	168	2.4	26	5.6	5	3.1
1984	227	2.9	190	2.6	33	6.6	5	2.9
1985	207	2.5	161	2.1	41	7.8	6	3.3
1986	217	2.6	177	2.3	34	6.1	6	2.5
1987	176	2.1	143	1.8	30	4.8	3	--
1988	216	2.5	163	2.1	46	6.7	7	2.0
1989	218	2.4	173	2.1	36	4.9	9	2.5
1990	203	2.2	172	2.1	26	3.4	5	1.4
1991	176	2.0	142	1.8	30	4.1	4	--
1992	154	1.8	113	1.5	35	4.8	6	1.7
1993	148	1.7	123	1.7	21	3.0	4	--

¹ Hispanic origin could not be identified on the Massachusetts death certificate before 1989; thus, Hispanic trend data are not available. Most Hispanics are included in the race category of white. ² Infant: A child less than one year (365 days) old. ³ Deaths of infants of unknown race are excluded except for total calculation. For rate computations, infants of unknown race are allocated into race categories according to the distribution of births of known race. ⁴ Other: Asian, American Indian, and other race. ⁵ Infant, neonatal and post neonatal mortality rates are per 1,000 live births. ⁶ Neonate: A child less than 28 days old. ⁷ Calculations based on fewer than five events are excluded. ⁸ Post Neonate: A child whose age is at least 28 days, but less than one year.

Table D-3. Infant, Neonatal, and Post Neonatal Deaths by Selected Causes, Massachusetts Resident Deaths: 1993

Cause of Death	ICD-9 Code ¹	Infant (<1 year)		Neonatal (<28 days)		Post Neonatal (28 days-<1 year)	
		#	% ²	#	%	#	%
TOTAL		523	100.0	375	100.0	148	100.0
Infectious and Parasitic Diseases	001-139	13	2.5	2	-- ³	11	7.4
Inflammatory Diseases of the Central Nervous System	320-326	1	--	0	0.0	1	--
Diseases of the Circulatory System	390-459	15	2.9	5	1.3	9	6.1
Diseases of the Respiratory System	460-519	9	1.7	1	--	8	5.4
Diseases of the Digestive System	520-579	6	1.1	3	--	3	--
Congenital Anomalies	740-759	102	19.5	79	21.1	23	15.5
Congenital anomalies of the heart	745-746	22		13		9	
Congenital anomalies of the respiratory system	748	20		7		13	
Chromosomal anomalies	758	15		11		4	
Certain Conditions Originating in the Perinatal Period	760-779	274	52.4	269	71.7	5	3.4
Newborn affected by maternal complications of pregnancy	761	41		41		0	
Newborn affected by complications of placenta, cord and membrane	762	21		21		0	
Disorders relating to short gestation and unspecified low birthweight	765	91		90		1	
Intrauterine hypoxia and birth asphyxia	768	11		10		1	
Respiratory distress syndrome	769	24		23		1	
Other respiratory conditions	770	33		33		0	
Ill-defined conditions originating in the perinatal period	779	16		16		0	
Sudden Infant Death Syndrome (SIDS)	798.0	62	11.9	4	--	58	39.2
Injuries	E800-E999	15	2.9	0	0.0	15	10.1
All Other Causes	Residual	27	5.2	12	3.2	15	10.1

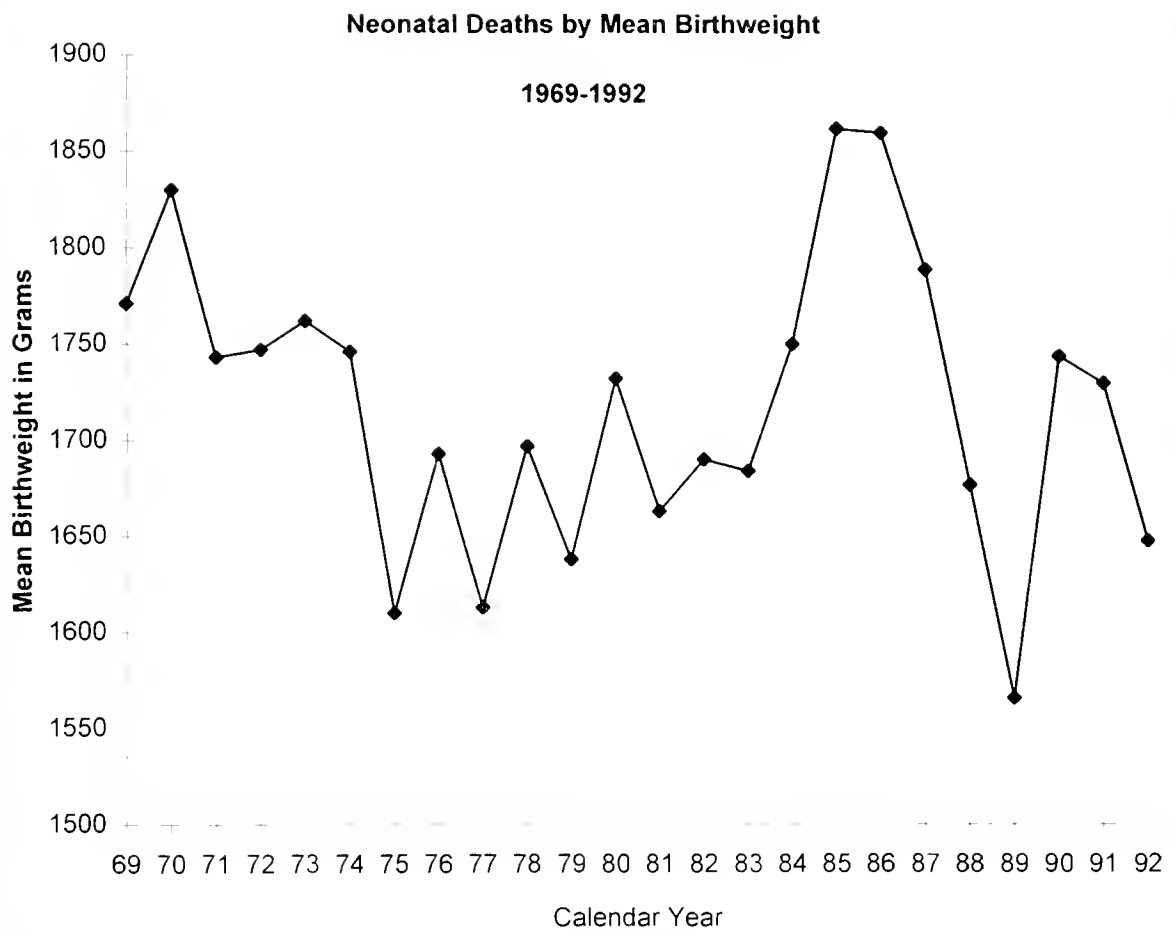
¹ The ICD-9 subcategories are only selected causes, and the sum does not equal the total. ² Percents are not calculated for subcategories. ³ Calculations based on fewer than five events are excluded.

Table D-4. Infant and Neonatal Deaths by Age, Sex, Race and Ethnicity, Massachusetts Resident Deaths: 1993

	TOTAL			WHITE NON-HISPANIC			BLACK NON-HISPANIC			HISPANIC			ASIAN			OTHER		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total (< one year) ¹	523	298	225	346	199	147	84	49	35	77	41	36	13	7	6	3	2	1
Rate ²	6.2	6.8	5.5	5.3	5.9	4.6	13.1	14.9	11.1	9.3	9.7	8.9	3.9	4.1	3.7	.. ³	..	..
< One Day	233	134	99	144	80	64	47	31	16	37	20	17	5	3	2	0	0	0
1 Day	25	15	10	20	12	8	3	2	1	2	1	1	0	0	0	0	0	0
2 Days	24	13	11	17	8	9	2	1	1	4	4	0	1	0	1	0	0	0
3 Days	12	8	4	10	7	3	0	0	0	1	1	0	1	0	1	0	0	0
4 Days	3	2	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0
5 Days	5	2	3	3	2	1	0	0	0	2	0	2	0	0	0	0	0	0
6 Days	3	2	1	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0
< One Week	305	176	129	199	112	87	53	35	18	46	26	20	7	3	4	0	0	0
Rate ²	3.6	4.0	3.1	3.0	3.3	2.7	8.2	10.7	5.7	5.6	6.2	4.9	2.1	..	..	..	..	..
7-13 Days	41	17	24	26	12	14	9	2	7	4	2	2	2	1	1	0	0	0
14-27 Days	29	9	20	20	7	13	2	1	1	5	0	5	0	0	0	2	1	1
< 28 Days	375	202	173	245	131	114	64	38	26	55	28	27	9	4	5	2	1	1
Rate ²	4.4	4.6	4.2	3.7	3.9	3.6	10.0	11.6	8.3	6.7	6.6	6.7	2.7	..	3.1	..	..	..
1 Month	25	14	11	15	9	6	6	2	4	4	3	1	0	0	0	0	0	0
2 Months	36	24	12	23	17	6	4	2	2	8	4	4	0	0	0	1	1	0
3 Months	27	17	10	18	11	7	2	1	1	6	4	2	1	1	0	0	0	0
4 Months	10	7	3	7	5	2	2	1	1	0	0	0	1	1	0	0	0	0
5 Months	16	11	5	14	9	5	1	1	0	1	1	0	0	0	0	0	0	0
6 Months	10	7	3	5	3	2	3	2	1	1	1	0	1	1	0	0	0	0
7 Months	7	5	2	6	4	2	1	1	0	0	0	0	0	0	0	0	0	0
8 Months	6	4	2	6	4	2	0	0	0	0	0	0	0	0	0	0	0	0
9 Months	3	2	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0
10 Months	3	0	3	0	0	0	0	0	0	2	0	2	1	0	1	0	0	0
11 Months	5	5	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0

¹ In calculating infant mortality rates by race, deaths of infants of unknown race are excluded except for total calculation. For rate computations, infants of unknown race are allocated into race categories according to the distribution of births of known race. ² Rates per 1,000 live births. ³ Calculations based on fewer than five events are excluded.

Figure D-3



Data for 1993 were not available at time of publication.

Table D-5. Neonatal Mortality by Birthweight¹, Massachusetts Resident Births/Deaths: 1980-1992²

	All Birthweights		<500 grams	500-1499 grams	1500-2499 grams	2500-4499 grams	4500-8165 grams	Unknown
1980	Neonatal Deaths	539	85	237	73	112	4	28
	Births	72,627	90	650	3,687	66,714	1,398	88
	Rate ³	7.4	944.4	364.6	19.8	1.7	2.9	318.2
1981	Neonatal Deaths	467	74	202	56	95	4	36
	Births	73,960	84	666	3,687	67,968	1,474	81
	Rate	6.3	881.0	303.3	15.2	1.4	2.7	444.4
1982	Neonatal Deaths	567	90	263	69	127	3	15
	Births	75,771	91	752	3,614	69,785	1,461	68
	Rate	7.5	989.0	349.7	19.1	1.8	2.0	220.6
1983	Neonatal Deaths	484	90	210	53	103	3	25
	Births	76,080	96	709	3,688	69,906	1,594	87
	Rate	6.4	937.5	296.2	14.4	1.5	1.9	287.4
1984	Neonatal Deaths	479	87	172	60	98	3	59
	Births	78,237	94	667	3,839	71,826	1,693	118
	Rate	6.1	925.5	257.9	15.6	1.4	1.8	500.0
1985	Neonatal Deaths	534	117	193	72	119	7	26
	Births	81,844	123	754	3,910	75,216	1,746	95
	Rate	6.5	951.2	256.0	18.4	1.6	4.0	273.7
1986	Neonatal Deaths	479	101	166	59	100	9	44
	Births	82,324	107	693	3,880	74,648	1,849	1,147
	Rate	5.8	943.9	239.5	15.2	1.3	4.9	38.4
1987	Neonatal Deaths	427	93	155	61	80	6	32
	Births	84,343	93	713	4,041	77,200	1,906	390
	Rate	5.1	1000.0	217.4	15.1	1.0	3.1	82.0
1988	Neonatal Deaths	443	107	189	44	86	6	11
	Births	88,047	108	869	4,289	80,617	1,864	300
	Rate	5.0	990.7	217.5	10.3	1.1	3.2	36.7
1989	Neonatal Deaths	496	133	214	49	80	4	16
	Births	91,728	141	930	4,375	84,175	1,973	134
	Rate	5.4	943.3	230.1	11.2	0.9	2.0	119.4
1990	Neonatal Deaths	445	115	174	46	90	1	19
	Births	92,686	124	858	4,432	85,146	1,874	252
	Rate	4.8	927.4	202.8	10.4	1.1	0.5	75.4
1991	Neonatal Deaths	401	96	159	45	83	5	13
	Births	88,176	102	900	4,198	81,066	1,829	81
	Rate	4.5	941.2	176.7	10.7	1.0	2.7	160.5
1992	Neonatal Deaths	418	108	150	41	68	1	50
	Births	87,202	115	772	4,250	80,113	1,749	203
	Rate	4.8	939.1	194.3	9.6	0.8	0.6	246.3

¹ The figures used in this table cannot be directly compared with other tables in this report. Please refer to the "Neonatal Mortality by Birthweight" portion of the Section D narrative for further explanation. ² Data for 1993 were not available at time of publication. ³ Rates are per 1,000 resident live births.

MARRIAGES & DIVORCES

SECTION E

MARRIAGES AND DIVORCES

Marriages and divorces are reported by place of occurrence in Massachusetts. For example, if two Malden residents are married in Everett, this marriage will be reported by place of occurrence (Everett) rather than the residence of the couple (Malden). Marriages have traditionally been reported in this manner because of the number of couples who live in different communities. Additionally, out-of-state residents who marry in Massachusetts are included in these data.

Marriages and divorces which involve Massachusetts residents, but occur in other states, are not included in these figures. No system of interstate exchange exists for these events. Unlike some states, Massachusetts marriage and divorce laws neither encourage out-of-state residents to come to the state nor discourage residents from using the Massachusetts system by imposing long waiting periods, etc. This allows the marriage data to be used to estimate resident marriages.

In 1993, 42,355 marriages occurred in Massachusetts compared to 43,228 in 1992, a decrease of 2.0%. The rate of marriages was 7.0 per 1,000 population in 1993, a decrease from the 1992 rate of 7.1. The 1993 U.S. rate of marriages per 1,000 population was 9.0, slightly less than the 1992 U.S. rate of 9.3. Of all brides in Massachusetts in 1993, 75.6% had never previously been married. This percentage was slightly less among the grooms--74.5%.

In 1993, 14,435 divorces were granted in Massachusetts, a decrease of 6.3% from the 15,411 divorces granted in 1992. The 1993 rate of divorce per 1,000 population in Massachusetts was 2.4, slightly lower than the 1992 divorce rate of 2.5. This rate was well below the 1993 U.S. rate of 4.6 divorces per 1,000 population.

RATES IMPORTANT FOR THIS SECTION INCLUDE:

MARRIAGE RATE	$\frac{\text{Number of Occurrence Marriages}}{\text{Total Population}} \times 1,000$
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DIVORCE RATE	$\frac{\text{Number of Occurrence Divorces}}{\text{Total Population}} \times 1,000$
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Table E-1. Marriages and Divorces by County

Massachusetts Occurrence: 1993

	<u>Marriages</u>	<u>Divorces</u>
State Total	42,355	14,435
<u>Counties</u>		
Barnstable	2,012	617
Berkshire	1,038	455
Bristol	3,441	1,499
Dukes	337	56
Essex	4,989	1,813
Franklin	451	233
Hampden	3,056	1,492
Hampshire	962	361
Middlesex	9,499	1,433
Nantucket	282	23
Norfolk	4,176	1,560
Plymouth	2,960	1,473
Suffolk	4,553	1,238
Worcester	4,599	2,182

Figure E-1

Rates of Marriages and Divorces per 1,000 Population
1900-1993

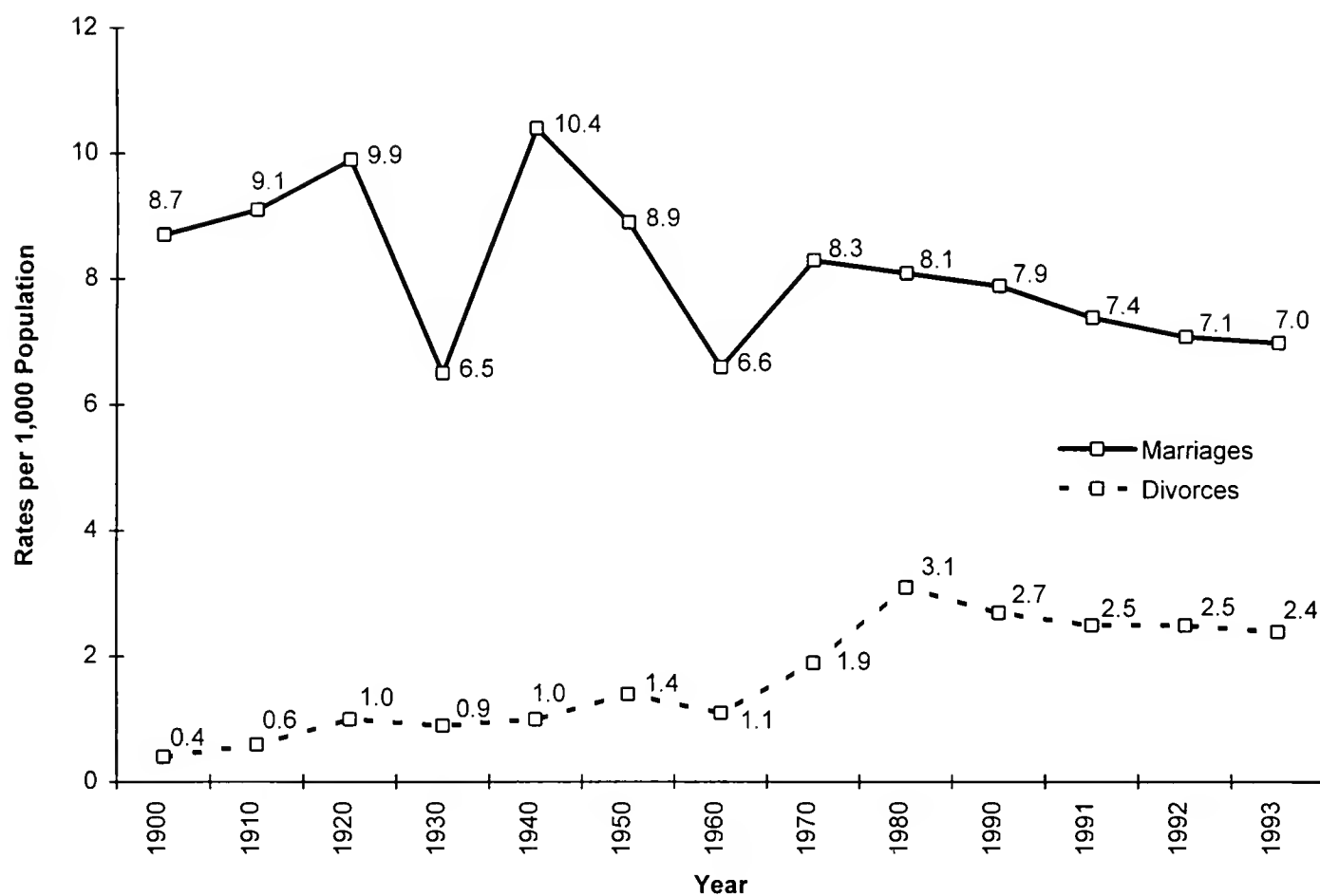


Table E-2. Marriages and Divorces and Rates Per 1,000 Population

Massachusetts Occurrence: 1900-1993

Year	<u>Marriages</u>		<u>Divorces</u>	
	Number	Rate	Number	Rate
1900	24,342	8.7	1,258	0.4
1905	27,184	9.1	1,554	0.5
1910	30,710	9.1	1,929	0.6
1915	31,301	8.5	2,252	0.6
1920	38,048	9.9	3,647	1.0
1925	31,238	7.5	3,395	0.8
1930	27,431	6.5	3,746	0.9
1935	30,019	6.9	4,081	0.9
1940	44,836	10.4	4,502	1.0
1945	38,197	8.5	6,833	1.5
1950	41,711	8.9	6,365	1.4
1955	35,585	7.3	5,601	1.2
1960	34,050	6.6	5,592	1.1
1965	38,281	7.2	7,728	1.5
1970	47,292	8.3	10,818	1.9
1975	42,103	7.3	16,460	2.8
1980	46,273	8.1	17,873	3.1
1981	47,802	8.3	19,502	3.4
1982	48,654	8.4	19,531	3.4
1983	48,789	8.4	18,477	3.2
1984	50,302	8.7	17,123	3.0
1985	49,849	8.6	21,573	3.7
1986	49,990	8.6	19,809	3.4
1987	49,034	8.4	16,994	2.9
1988	49,941	8.5	17,676	3.0
1989	49,174	8.4	16,819	2.9
1990	47,786	7.9	16,258	2.7
1991	44,621	7.4	14,987	2.5
1992	43,228	7.1	15,411	2.5
1993	42,355	7.0	14,435	2.4

Table E-3. Marriages by Age and Marital Status

Massachusetts Occurrence: 1993

Bride								
	Total		Single		Widowed		Divorced	
Age	Number	%	Number	%	Number	%	Number	%
Total	42,355	100.0	32,016	75.6	855	2.0	9,484	22.4
< 20	1,415	100.0	1,406	99.4	1	0.1	8	0.6
20-29	24,535	100.0	22,726	92.6	34	0.1	1,775	7.2
30-39	11,594	100.0	7,015	60.5	156	1.3	4,423	38.1
40-49	3,392	100.0	763	22.5	183	5.4	2,446	72.1
50-59	951	100.0	86	9.0	171	18.0	694	73.0
60-69	337	100.0	15	4.5	204	60.5	118	35.0
≥ 70	131	100.0	5	3.8	106	80.9	20	15.3
Groom								
	Total		Single		Widowed		Divorced	
Age	Number	%	Number	%	Number	%	Number	%
Total	42,355	100.0	31,546	74.5	903	2.1	9,906	23.4
< 20	447	100.0	447	100.0	0	0.0	0	0.0
20-29	21,051	100.0	20,020	95.1	13	0.1	1,018	4.8
30-39	13,955	100.0	9,730	69.7	70	0.5	4,155	29.8
40-49	4,453	100.0	1,162	26.1	143	3.2	3,148	70.7
50-59	1,496	100.0	141	9.4	177	11.8	1,178	78.7
60-69	658	100.0	34	5.2	267	40.6	357	54.2
≥ 70	295	100.0	12	4.1	233	79.0	50	16.9

Table E-4. Number of Marriages by Age of Bride and Age of Groom**Massachusetts Occurrence: 1993**

Age of Bride	Age of Groom							
	Total	< 20	20-29	30-39	40-49	50-59	60-69	≥ 70
Total	42,355	447	21,051	13,955	4,453	1,496	658	295
< 20	1,415	284	1,054	75	1	1	0	0
20-29	24,535	155	17,639	6,205	475	53	5	3
30-39	11,594	8	2,235	6,826	2,187	295	38	5
40-49	3,392	0	117	808	1,604	691	148	24
50-59	951	0	6	37	180	425	255	48
60-69	337	0	0	4	6	30	187	110
≥ 70	131	0	0	0	0	1	25	105

Table E-5. Number of Marriages for Bride by Number of Marriages for Groom**Massachusetts Occurrence: 1993**

Bride	Number of Marriages Groom					
	Total	1	2	3	4	≥ 5
Total	42,355	31,547	9,059	1,550	182	17
1	32,016	27,305	4,171	500	38	2
2	8,741	3,800	4,087	751	96	7
3	1,414	403	709	260	36	6
4	151	34	73	32	11	1
≥ 5	33	5	19	7	1	1

POPULATION

SECTION F

POPULATION

The population data in this section are presented for use in computing rates for small areas and for reporting changes over time by municipality and county. They are based primarily on the U.S. Federal Census for 1990.

Prior to 1985, the Massachusetts State Census method of enumeration differed from the federal census. Generally, the state figures excluded non-resident students and military families residing in the Commonwealth; they are included in the U.S. Census definition of resident.

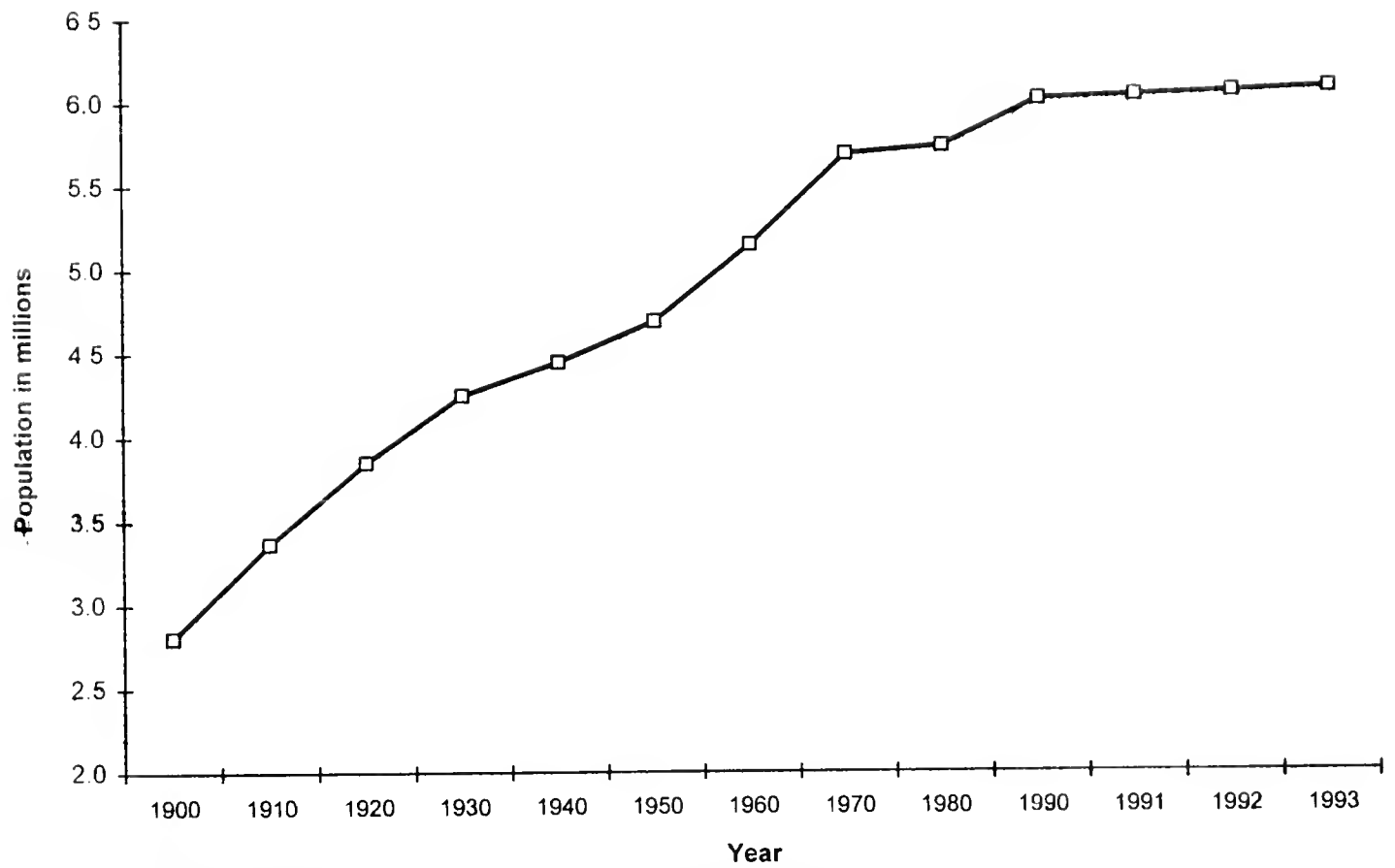
The Massachusetts population estimates for the years 1981-1989 (Table F-4) are calculated as linear interpolations from 1980 and 1990 U.S. Federal Census data. The 1993 population estimate is an interpolation of the 1990 U.S. Federal Census and MISER projections for 1995.

All additional interpolations and calculations have been provided by Robert A. Danley, Ph.D., Division of Research and Epidemiology, Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health.

In 1993, there were an estimated 6,083,200 residents of Massachusetts. This represents a 4.5% increase in population since 1983, when the population numbered 5,820,854. Among the total 1993 population in Massachusetts, almost 48% were male, 25.7% were below the age of 20, and 6.3% were over 75 years of age.

Figure F-1

**Massachusetts Population
1900-1993**



Note: 1981-1989, 1991, 1992, and 1993 are population estimates.

Table F-1. Population by Race, Age and Sex, Massachusetts: 1990¹

Age	Sex	Total	White	Black	Other
Under 1	Male	46,018	40,463	3,925	1,630
	Female	44,125	38,546	3,926	1,653
	Total	90,143	79,009	7,851	3,283
1-4	Male	169,427	149,849	13,663	5,915
	Female	161,779	142,349	13,489	5,941
	Total	331,206	292,198	27,152	11,856
5-9	Male	193,482	172,170	14,393	6,919
	Female	183,137	162,336	14,104	6,697
	Total	376,619	334,506	28,497	13,616
10-14	Male	177,899	159,257	13,226	5,416
	Female	169,117	150,743	12,916	5,458
	Total	347,016	310,000	26,142	10,874
15-19	Male	209,289	187,227	14,627	7,435
	Female	206,741	184,529	14,595	7,617
	Total	416,030	371,756	29,222	15,052
20-24	Male	256,657	231,290	16,344	9,023
	Female	260,537	234,182	17,002	9,353
	Total	517,194	465,472	33,346	18,376
25-29	Male	277,295	251,142	16,785	9,368
	Female	279,025	252,738	17,311	8,976
	Total	556,320	503,880	34,096	18,344
30-34	Male	268,701	244,766	15,346	8,589
	Female	273,629	249,299	15,867	8,463
	Total	542,330	494,065	31,213	17,052
35-39	Male	237,202	217,981	12,403	6,818
	Female	243,972	223,847	13,153	6,972
	Total	481,174	441,828	25,556	13,790
40-44	Male	211,399	196,542	9,811	5,046
	Female	221,975	206,029	10,619	5,327
	Total	433,374	402,571	20,430	10,373
45-49	Male	162,636	152,146	7,024	3,466
	Female	170,698	159,100	8,211	3,387
	Total	333,334	311,246	15,235	6,853

¹ Figures are from the 1990 U.S. Census.

Table F-1. Population by Race, Age and Sex, Massachusetts: 1990

Age	Sex	Total	White	Black	Other
50-54	Male	126,581	118,555	5,246	2,780
	Female	136,020	127,187	6,274	2,559
	Total	262,601	245,742	11,520	5,339
55-59	Male	120,175	113,887	4,238	2,050
	Female	131,999	124,575	5,263	2,161
	Total	252,174	238,462	9,501	4,211
60-64	Male	121,609	116,299	3,762	1,548
	Female	140,296	133,558	4,844	1,894
	Total	261,905	249,857	8,606	3,442
65-69	Male	110,424	106,135	3,064	1,225
	Female	140,959	135,442	4,083	1,434
	Total	251,383	241,577	7,147	2,659
70-74	Male	85,541	82,863	1,965	713
	Female	121,790	117,883	2,973	934
	Total	207,331	200,746	4,938	1,647
75-79	Male	59,037	57,350	1,199	488
	Female	100,616	97,776	2,156	684
	Total	159,653	155,126	3,355	1,172
80-84	Male	33,468	32,561	669	238
	Female	72,831	71,105	1,338	388
	Total	106,299	103,666	2,007	626
≥ 85	Male	21,905	21,324	439	142
	Female	68,434	66,965	1,187	282
	Total	90,339	88,289	1,626	424
Total	Male	2,888,745	2,651,807	158,129	78,809
	Female	3,127,680	2,878,189	169,311	80,180
	Total	6,016,425	5,529,996	327,440	158,989

Figure F-2

1990 Massachusetts Population by Age

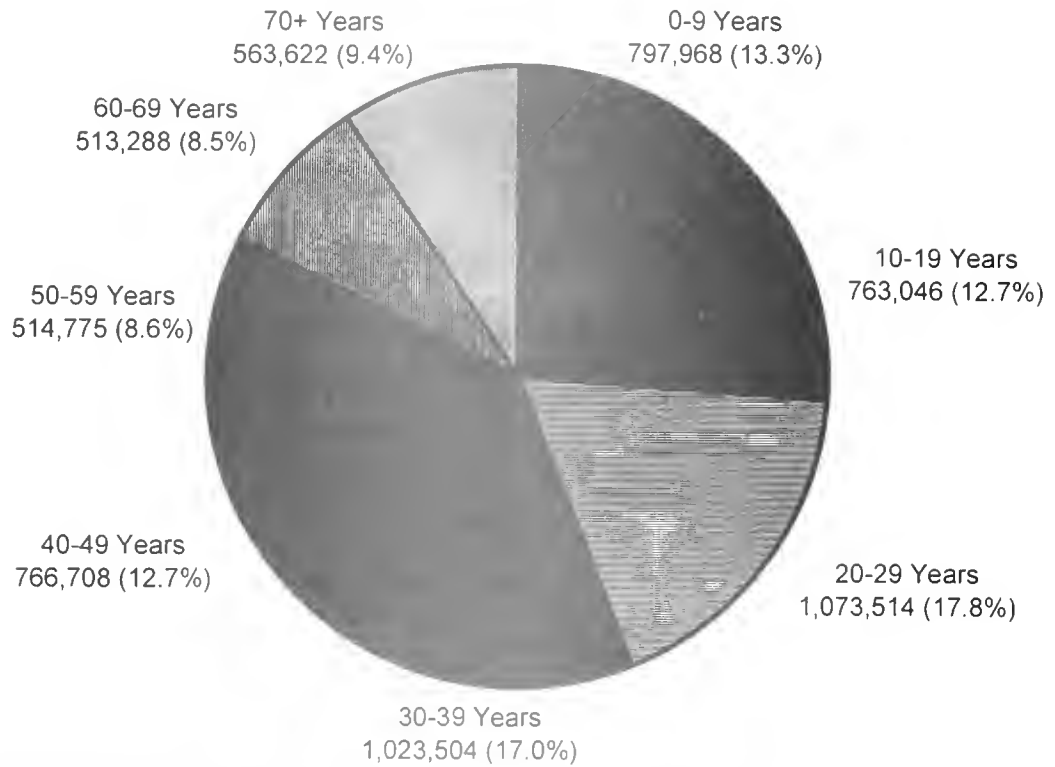


Figure F-3

1990 Massachusetts Population by Race

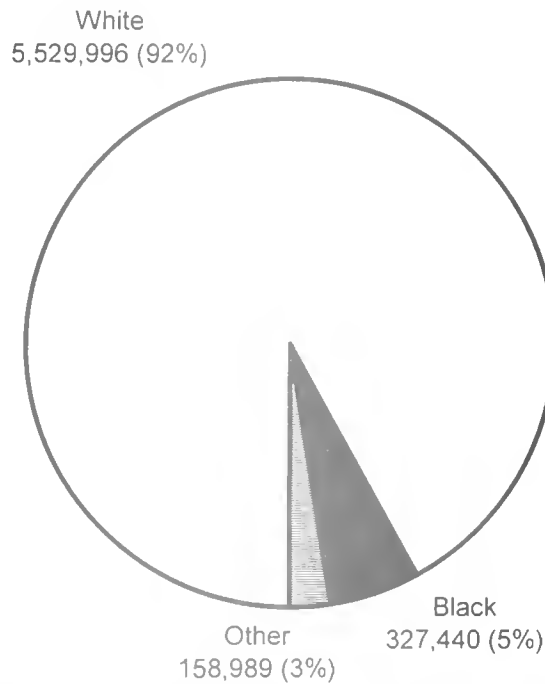


Table F-2. Massachusetts Population by County: 1960-1990

	Federal 1960	State 1965¹	Federal 1970	State 1975²	Federal 1980	State 1985³	Federal 1990⁴
State	5,148,578	5,418,878	5,689,170	5,713,107	5,737,037	5,876,734	6,016,425
<u>Counties</u>							
Barnstable	70,286	83,471	96,656	122,291	147,925	167,265	186,605
Berkshire	142,135	145,769	149,402	147,256	145,110	142,231	139,352
Bristol	398,488	421,395	444,301	459,471	474,641	490,483	506,325
Dukes	5,829	5,973	6,117	7,530	8,942	10,291	11,639
Essex	568,831	603,359	637,887	635,760	633,632	651,856	670,080
Franklin	54,864	57,037	59,210	61,764	64,317	67,205	70,092
Hampden	429,353	444,202	459,050	451,034	443,018	449,664	456,310
Hampshire	103,229	113,605	123,981	131,397	138,813	142,691	146,568
Middlesex	1,238,742	1,318,005	1,397,268	1,382,151	1,367,034	1,382,751	1,398,468
Nantucket	3,559	3,667	3,774	4,431	5,087	5,550	6,012
Norfolk	510,256	557,654	605,051	605,819	606,587	611,337	616,087
Plymouth	248,449	290,882	333,314	369,376	405,437	420,357	435,276
Suffolk	791,329	763,260	735,190	692,666	650,142	657,024	663,906
Worcester	583,228	610,599	637,969	642,161	646,352	678,029	709,705

¹ 1965 State Census figures are interpolations of the 1960 and 1970 U.S. Census counts. ² 1975 State Census figures are interpolations of the 1970 and 1980 U.S. Census counts. ³ 1985 State Census figures are interpolations of the 1980 and 1990 U.S. Census counts. ⁴ Figures are from the 1990 U.S. Census.

Table F-3. Massachusetts Population by City and Town: 1980 and 1990

City/Town	1980 US Census	1990 US Census	City/Town	1980 US Census	1990 US Census
Abington	13,517	13,817	Dover	4,703	4,915
Acton	17,544	17,872	Dracut	21,249	25,594
Acushnet	8,704	9,554	Dudley	8,717	9,540
Adams	10,381	9,445	Dunstable	1,671	2,236
Agawam	26,271	27,323	Duxbury	11,807	13,895
Alford	394	418	East Bridgewater	9,945	11,104
Amesbury	13,971	14,997	East Brookfield	1,955	2,033
Amherst	33,229	35,228	East Longmeadow	12,905	13,367
Andover	26,370	29,151	Eastham	3,472	4,462
Arlington	48,219	44,630	Easthampton	15,580	15,537
Ashburnham	4,075	5,433	Easton	16,623	19,807
Ashby	2,311	2,717	Edgartown	2,204	3,062
Ashfield	1,458	1,715	Egremont	1,311	1,229
Ashland	9,165	12,066	Erving	1,326	1,372
Athol	10,634	11,451	Essex	2,998	3,260
Attleboro	34,196	38,383	Everett	37,195	35,701
Auburn	14,845	15,005	Fairhaven	15,759	16,132
Avon	5,026	4,558	Fall River	92,574	92,703
Ayar	6,993	6,871	Falmouth	23,640	27,960
Barnstable	30,898	40,949	Fitchburg	39,580	41,194
Berre	4,102	4,546	Florida	730	742
Becket	1,339	1,481	Foxborough	14,148	14,637
Bedford	13,067	12,996	Frammingham	65,113	64,989
Belchertown	8,339	10,579	Franklin	18,217	22,095
Bellingham	14,300	14,877	Freetown	7,058	8,522
Belmont	26,100	24,720	Gardner	17,900	20,125
Berkley	2,731	4,237	Gay Head	220	201
Berlin	2,215	2,293	Georgetown	5,687	6,384
Bernardston	1,750	2,048	Gill	1,259	1,583
Beverly	37,655	38,195	Gloucester	27,768	28,716
Billerica	36,727	37,609	Goshen	651	830
Blackstone	6,570	8,023	Gosnold	63	98
Blandford	1,038	1,187	Grafton	11,238	13,035
Bolton	2,530	3,134	Granby	5,380	5,565
Boston	562,994	574,283	Grenville	1,204	1,403
Bourne	13,874	16,064	Greet Berrington	7,405	7,725
Boxborough	3,126	3,343	Greenfield	18,436	18,666
Boxford	5,374	6,266	Groton	6,154	7,511
Boylston	3,470	3,517	Groveland	5,040	5,214
Braintree	36,337	33,836	Hadley	4,125	4,231
Brewster	5,226	8,440	Halifax	5,513	6,526
Bridgewater	17,202	21,249	Hamilton	6,960	7,280
Brimfield	2,318	3,001	Hampden	4,745	4,709
Brockton	95,172	92,788	Hancock	643	628
Brookfield	2,397	2,968	Hanover	11,358	11,912
Brookline	55,062	54,718	Hanson	8,617	9,028
Buckland	1,864	1,928	Hardwick	2,272	2,385
Burlington	23,486	23,302	Haverd	12,170	12,329
Cambridge	95,322	95,802	Harwich	8,971	10,275
Canton	18,182	18,530	Hatfield	3,045	3,184
Carlisle	3,306	4,333	Haverhill	46,865	51,418
Carver	6,988	10,590	Hawley	280	317
Charlemont	1,149	1,249	Heath	482	716
Charlton	6,719	9,576	Hingham	20,339	19,821
Chatham	6,071	6,579	Hinsdale	1,707	1,959
Chelmsford	31,174	32,383	Holbrook	11,140	11,041
Chelsea	25,431	28,710	Holden	13,336	14,628
Cheshire	3,124	3,479	Holland	1,589	2,185
Chester	1,123	1,280	Holliston	12,622	12,926
Chesterfield	1,000	1,048	Holyoke	44,678	43,704
Chicopee	55,112	56,632	Hopedale	3,905	5,666
Chilmark	489	650	Hopkinton	7,114	9,191
Clerksburg	1,871	1,745	Hubbardston	1,797	2,797
Clinton	12,771	13,222	Hudson	16,408	17,233
Cohasset	7,174	7,075	Hull	9,714	10,466
Colrain	1,552	1,757	Huntington	1,804	1,987
Concord	16,293	17,076	Ipswich	11,158	11,873
Conway	1,213	1,529	Kingston	7,362	9,045
Cummington	657	785	Lakeville	5,931	7,785
Dalton	6,797	7,155	Lancaster	6,334	6,661
Danvers	24,100	24,174	Lanesborough	3,131	3,032
Dartmouth	23,966	27,244	Lawrence	63,175	70,207
Dedham	25,298	23,782	Lee	6,247	5,849
Deerfield	4,517	5,018	Leicester	9,446	10,191
Dennis	12,360	13,864	Lenox	6,523	5,069
Dighton	5,352	5,631	Leominster	34,508	38,145
Douglas	3,730	5,438	Leverett	1,471	1,785

Table F-3. Massachusetts Population by City and Town: 1980 and 1990

City/Town	1980 US Census	1990 US Census	City/Town	1980 US Census	1990 US Census
Lexington	29,479	28,974	Pepperell	8,061	10,098
Leyden	498	662	Peru	633	779
Lincoln	7,098	7,666	Petersham	1,024	1,131
Littleton	6,970	7,051	Phillipston	953	1,485
Longmaadow	16,301	15,467	Pittsfield	51,974	48,622
Lowell	92,418	103,439	Plainfield	425	571
Ludlow	18,150	18,820	Plainville	5,857	6,871
Lunenburg	8,405	9,117	Plymouth	35,913	45,608
Lynn	78,471	81,245	Plympton	1,974	2,384
Lynnfield	11,267	11,274	Princeton	2,425	3,189
Malden	53,386	53,884	Provincetown	3,536	3,561
Manchester	5,424	5,286	Quincy	84,743	84,985
Mansfield	13,453	16,568	Randolph	28,218	30,093
Marblehead	20,126	19,971	Reynham	9,085	9,867
Marion	3,932	4,496	Reading	22,678	22,539
Marlborough	30,617	31,813	Rahoboth	7,570	8,656
Marsfield	20,916	21,531	Revere	42,423	42,786
Mashpee	3,700	7,884	Richmond	1,659	1,677
Mattapoisett	5,597	5,850	Rochester	3,205	3,921
Maynard	9,590	10,325	Rockland	15,695	16,123
Medfield	10,220	10,531	Rockport	6,345	7,482
Medford	58,076	57,407	Rowe	336	378
Medway	8,447	9,931	Rowley	3,867	4,452
Melrose	30,055	28,150	Royalston	955	1,147
Mendon	3,108	4,010	Russell	1,570	1,594
Merrimac	4,451	5,166	Rutland	4,334	4,936
Methuen	36,701	39,990	Salem	38,220	38,091
Middleborough	16,404	17,867	Salisbury	5,973	6,882
Middlefield	385	392	Sandisfield	720	667
Middleton	4,135	4,921	Sandwich	8,727	15,489
Millford	23,390	25,355	Seagus	24,746	25,549
Millbury	11,808	12,228	Savoy	644	634
Millis	6,908	7,613	Scituate	17,317	16,786
Millville	1,693	2,236	Seekonk	12,269	13,046
Milton	25,860	25,725	Sharon	13,601	15,517
Monroe	179	115	Sheffield	2,743	2,910
Monson	7,315	7,776	Shelburne	2,002	2,012
Montague	8,011	8,316	Sherborn	4,049	3,989
Monterey	818	805	Shirley	5,124	6,118
Montgomery	637	759	Shrewsbury	22,674	24,146
Mount Washington	93	135	Shutesbury	1,049	1,561
Nahant	3,947	3,828	Somerset	18,813	17,655
Nantucket	5,087	6,012	Somerville	77,372	76,210
Natick	29,461	30,510	South Hadley	16,399	16,685
Needham	27,901	27,557	Southampton	4,137	4,478
New Ashford	159	192	Southborough	6,193	6,628
New Bedford	98,478	99,922	Southbridge	16,665	17,816
New Braintree	671	881	Southwick	7,382	7,667
New Marlborough	1,160	1,240	Spencer	10,774	11,645
New Salem	688	802	Springfield	152,319	156,983
Newbury	4,529	5,623	Sterling	5,440	6,481
Newburyport	15,900	16,317	Stockbridge	2,328	2,408
Newton	83,622	82,585	Stoneham	21,424	22,203
Norfolk	6,363	9,270	Stoughton	26,710	26,777
North Adams	18,063	16,797	Stow	5,144	5,328
North Andover	20,129	22,792	Sturbridge	5,976	7,775
North Attleboro	21,095	25,038	Sudbury	14,027	14,358
North Brookfield	4,150	4,708	Sunderland	2,929	3,399
North Reading	11,455	12,002	Sutton	5,855	6,824
Northampton	29,286	29,289	Swampscott	13,837	13,650
Northborough	10,568	11,929	Swansea	15,461	15,411
Northbridge	12,246	13,371	Taunton	45,001	49,832
Northfield	2,386	2,838	Templeton	6,070	6,438
Norton	12,690	14,265	Tewksbury	24,635	27,266
Norwell	9,182	9,279	Tisbury	2,972	3,120
Norwood	29,711	28,700	Tolland	235	289
Oak Bluffs	1,984	2,804	Topsfield	5,709	5,754
Oakham	994	1,503	Townsend	7,201	8,496
Orange	6,844	7,312	Truro	1,486	1,573
Orleans	5,306	5,838	Tyngsborough	5,683	8,642
Otis	963	1,073	Tyringham	344	369
Oxford	11,680	12,588	Upton	3,886	4,677
Palmar	11,389	12,054	Uxbridge	8,374	10,415
Paxton	3,762	4,047	Wakefield	24,895	24,825
Pasbody	45,976	47,039	Wales	1,177	1,566
Pelham	1,112	1,373	Walpole	18,859	20,212
Pembroke	13,487	14,544	Waltham	58,200	57,878

Table F-3. Massachusetts Population by City and Town: 1980 and 1990

City/Town	1980 US Census	1990 US Census
Ware	8,953	9,808
Wareham	18,457	19,232
Warren	3,777	4,437
Warewick	603	740
Weshington	587	615
Watertown	34,384	33,284
Wayland	12,170	11,874
Webster	14,480	16,196
Wellesley	27,209	26,615
Wellfleet	2,209	2,493
Wendell	694	899
Wenham	3,897	4,212
West Boylston	6,204	6,611
West Bridgewater	6,359	6,389
West Brookfield	3,026	3,532
West Newbury	2,861	3,421
West Springfield	27,042	27,537
West Stockbridge	1,280	1,483
West Tisbury	1,010	1,704
Westborough	13,619	14,133
Westfield	36,465	38,372
Westford	13,434	16,392
Westhampton	1,137	1,327
Westminster	5,139	6,191
Weston	11,169	10,200
Westport	13,763	13,852
Westwood	13,212	12,557
Weymouth	55,601	54,063
Whetely	1,341	1,375
Whitmen	13,534	13,240
Wilbraham	12,053	12,635
Williamsburg	2,237	2,515
Williamstown	8,741	8,220
Wilmington	17,471	17,651
Winchendon	7,019	8,805
Winchester	20,701	20,267
Windsor	598	770
Winthrop	19,294	18,127
Woburn	36,626	35,943
Worcester	161,799	169,759
Worthington	932	1,156
Wrentham	7,580	9,006
Yarmouth	18,449	21,174
Statewide Totals	5,737,037	6,016,425

Table F-4. Population Counts and Estimates, Massachusetts: 1980-1993

AGE GROUP	YEAR	TOTAL	MALE	FEMALE
0-4	1980	337,215	173,029	164,186
	1981	345,629	177,271	168,358
	1982	354,042	181,512	172,530
	1983	362,455	185,754	176,701
	1984	370,868	189,995	180,873
	1985	379,282	194,237	185,045
	1986	387,696	198,479	189,217
	1987	396,109	202,720	193,389
	1988	404,522	206,962	197,560
	1989	412,935	211,203	201,732
	1990	421,349	215,445	205,904
	1991	414,476	211,926	202,550
	1992	407,605	208,426	199,179
	1993	400,717	204,902	195,815
5-9	1980	374,734	191,602	183,132
	1981	374,923	191,790	183,133
	1982	375,111	191,978	183,133
	1983	375,300	192,166	183,134
	1984	375,488	192,354	183,134
	1985	375,677	192,542	183,135
	1986	375,865	192,730	183,135
	1987	376,054	192,918	183,136
	1988	376,242	193,106	183,136
	1989	376,431	193,294	183,137
	1990	376,619	193,482	183,137
	1991	377,918	194,157	183,761
	1992	379,195	194,814	184,381
	1993	380,489	195,470	185,019
10-14	1980	461,332	235,669	225,663
	1981	449,900	229,892	220,008
	1982	438,469	224,115	214,354
	1983	427,037	218,338	208,699
	1984	415,606	212,561	203,045
	1985	404,174	206,784	197,390
	1986	392,742	201,007	191,735
	1987	381,311	195,230	186,081
	1988	369,879	189,453	180,426
	1989	358,448	183,676	174,772
	1990	347,016	177,899	169,117
	1991	353,412	181,166	172,246
	1992	359,812	184,427	175,385
	1993	366,212	187,702	178,510

Table F-4. Population Counts and Estimates, Massachusetts: 1980-1993

AGE GROUP	YEAR	TOTAL	MALE	FEMALE
15-19	1980	548,239	274,859	273,380
	1981	535,018	268,302	266,716
	1982	521,797	261,745	260,052
	1983	508,576	255,188	253,388
	1984	495,355	248,631	246,724
	1985	482,135	242,074	240,061
	1986	468,914	235,517	233,397
	1987	455,693	228,960	226,733
	1988	442,472	222,403	220,069
	1989	429,251	215,846	213,405
	1990	416,030	209,289	206,741
	1991	415,428	209,079	206,349
	1992	414,832	208,856	205,976
	1993	414,213	208,652	205,561
20-24	1980	552,902	270,713	282,189
	1981	549,331	269,307	280,024
	1982	545,761	267,902	277,859
	1983	542,189	266,496	275,693
	1984	538,619	265,091	273,528
	1985	535,048	263,685	271,363
	1986	531,477	262,279	269,198
	1987	527,907	260,874	267,033
	1988	524,335	259,468	264,867
	1989	520,765	258,063	262,702
	1990	517,194	256,657	260,537
	1991	504,121	250,187	253,934
	1992	491,037	243,714	247,323
	1993	477,970	237,245	240,725
25-29	1980	489,175	239,341	249,834
	1981	495,889	243,136	252,753
	1982	502,604	246,932	255,672
	1983	509,318	250,727	258,591
	1984	516,033	254,523	261,510
	1985	522,748	258,318	264,430
	1986	529,462	262,113	267,349
	1987	536,177	265,909	270,268
	1988	542,891	269,704	273,187
	1989	549,606	273,500	276,106
	1990	556,320	277,295	279,025
	1991	542,906	270,616	272,290
	1992	529,523	263,932	265,591
	1993	516,105	257,238	258,867

Table F-4. Population Counts and Estimates, Massachusetts: 1980-1993

AGE GROUP	YEAR	TOTAL	MALE	FEMALE
30-34	1980	446,395	217,649	228,746
	1981	455,988	222,754	233,234
	1982	465,582	227,859	237,723
	1983	475,176	232,965	242,211
	1984	484,769	238,070	246,699
	1985	494,363	243,175	251,188
	1986	503,956	248,280	255,676
	1987	513,549	253,385	260,164
	1988	523,143	258,491	264,652
	1989	532,737	263,596	269,141
	1990	542,330	268,701	273,629
	1991	537,086	266,041	271,045
	1992	531,846	263,383	268,463
	1993	526,615	260,732	265,883
35-39	1980	348,552	169,502	179,050
	1981	361,814	176,272	185,542
	1982	375,076	183,042	192,034
	1983	388,339	189,812	198,527
	1984	401,601	196,582	205,019
	1985	414,863	203,352	211,511
	1986	428,125	210,122	218,003
	1987	441,387	216,892	224,495
	1988	454,650	223,662	230,988
	1989	467,912	230,432	237,480
	1990	481,174	237,202	243,972
	1991	487,579	240,363	247,216
	1992	493,998	243,516	250,482
	1993	500,412	246,690	253,722
40-44	1980	278,748	134,925	143,823
	1981	294,210	142,572	151,638
	1982	309,673	150,220	159,453
	1983	325,136	157,867	167,269
	1984	340,599	165,515	175,084
	1985	356,061	173,162	182,899
	1986	371,523	180,809	190,714
	1987	386,986	188,457	198,529
	1988	402,449	196,104	206,345
	1989	417,912	203,752	214,160
	1990	433,374	211,399	221,975
	1991	443,742	216,488	227,254
	1992	454,118	221,573	232,545
	1993	464,496	226,676	237,820

Table F-4. Population Counts and Estimates, Massachusetts: 1980-1993

AGE GROUP	YEAR	TOTAL	MALE	FEMALE
45-49	1980	278,261	134,444	143,817
	1981	283,768	137,263	146,505
	1982	289,275	140,082	149,193
	1983	294,783	142,902	151,881
	1984	300,290	145,721	154,569
	1985	305,798	148,540	157,258
	1986	311,305	151,359	159,946
	1987	316,812	154,178	162,634
	1988	322,320	156,998	165,322
	1989	327,827	159,817	168,010
	1990	333,334	162,636	170,698
	1991	345,718	168,718	177,000
	1992	358,097	174,792	183,305
	1993	370,466	180,887	189,579
50-54	1980	306,574	146,211	160,363
	1981	302,177	144,248	157,929
	1982	297,779	142,285	155,494
	1983	293,382	140,322	153,060
	1984	288,985	138,359	150,626
	1985	284,588	136,396	148,192
	1986	280,190	134,433	145,757
	1987	275,793	132,470	143,323
	1988	271,396	130,507	140,889
	1989	266,998	128,544	138,454
	1990	262,601	126,581	136,020
	1991	277,035	133,625	143,410
	1992	291,457	140,648	150,809
	1993	305,890	147,680	158,210
55-59	1980	310,995	145,603	165,392
	1981	305,113	143,060	162,053
	1982	299,230	140,517	158,713
	1983	293,349	137,975	155,374
	1984	287,467	135,432	152,035
	1985	281,585	132,889	148,696
	1986	275,702	130,346	145,356
	1987	269,820	127,803	142,017
	1988	263,939	125,261	138,678
	1989	258,056	122,718	135,338
	1990	252,174	120,175	131,999
	1991	258,415	123,216	135,199
	1992	264,664	126,264	138,400
	1993	270,924	129,325	141,599

Table F-4. Population Counts and Estimates, Massachusetts: 1980-1993

AGE GROUP	YEAR	TOTAL	MALE	FEMALE
60-64	1980	277,384	126,323	151,061
	1981	275,837	125,852	149,985
	1982	274,288	125,380	148,908
	1983	272,741	124,909	147,832
	1984	271,192	124,437	146,755
	1985	269,645	123,966	145,679
	1986	268,097	123,495	144,602
	1987	266,549	123,023	143,526
	1988	265,001	122,552	142,449
	1989	263,453	122,080	141,373
	1990	261,905	121,609	140,296
	1991	259,702	120,630	139,072
	1992	257,490	119,652	137,838
	1993	255,294	118,691	136,603
65-69	1980	235,574	101,023	134,551
	1981	237,155	101,963	135,192
	1982	238,736	102,903	135,833
	1983	240,316	103,843	136,473
	1984	241,897	104,783	137,114
	1985	243,479	105,724	137,755
	1986	245,060	106,664	138,396
	1987	246,641	107,604	139,037
	1988	248,221	108,544	139,677
	1989	249,802	109,484	140,318
	1990	251,383	110,424	140,959
	1991	248,181	109,072	139,109
	1992	244,981	107,708	137,273
	1993	241,769	106,353	135,416
70-74	1980	187,041	73,235	113,806
	1981	189,070	74,466	114,604
	1982	191,099	75,696	115,403
	1983	193,128	76,927	116,201
	1984	195,157	78,157	117,000
	1985	197,186	79,388	117,798
	1986	199,215	80,619	118,596
	1987	201,244	81,849	119,395
	1988	203,273	83,080	120,193
	1989	205,302	84,310	120,992
	1990	207,331	85,541	121,790
	1991	208,014	85,869	122,145
	1992	208,703	86,208	122,495
	1993	209,396	86,535	122,861

Table F-4. Population Counts and Estimates, Massachusetts: 1980-1993

AGE GROUP	YEAR	TOTAL	MALE	FEMALE
75-79	1980	137,828	48,145	89,683
	1981	140,010	49,234	90,776
	1982	142,193	50,323	91,870
	1983	144,376	51,413	92,963
	1984	146,558	52,502	94,056
	1985	148,741	53,591	95,150
	1986	150,923	54,680	96,243
	1987	153,105	55,769	97,336
	1988	155,288	56,859	98,429
	1989	157,471	57,948	99,523
	1990	159,653	59,037	100,616
	1991	162,139	59,983	102,156
	1992	164,614	60,933	103,681
	1993	167,101	61,880	105,221
80-84	1980	92,180	28,513	63,667
	1981	93,592	29,009	64,583
	1982	95,004	29,504	65,500
	1983	96,416	30,000	66,416
	1984	97,828	30,495	67,333
	1985	99,240	30,991	68,249
	1986	100,651	31,486	69,165
	1987	102,064	31,982	70,082
	1988	103,475	32,477	70,998
	1989	104,888	32,973	71,915
	1990	106,299	33,468	72,831
	1991	108,378	34,156	74,222
	1992	110,457	34,867	75,590
	1993	112,539	35,553	76,986
≥ 85	1980	73,908	20,107	53,801
	1981	75,551	20,287	55,264
	1982	77,195	20,467	56,728
	1983	78,837	20,646	58,191
	1984	80,480	20,826	59,654
	1985	82,124	21,006	61,118
	1986	83,767	21,186	62,581
	1987	85,410	21,366	64,044
	1988	87,052	21,545	65,507
	1989	88,696	21,725	66,971
	1990	90,339	21,905	68,434
	1991	94,434	22,982	71,452
	1992	98,514	24,044	74,470
	1993	102,592	25,104	77,488

Table F-4. Population Counts and Estimates, Massachusetts: 1980-1993

AGE GROUP	YEAR	TOTAL	MALE	FEMALE
TOTAL	1980	5,737,037	2,730,893	3,006,144
	1981	5,764,975	2,746,678	3,018,297
	1982	5,792,914	2,762,462	3,030,452
	1983	5,820,854	2,778,250	3,042,604
	1984	5,848,792	2,794,034	3,054,758
	1985	5,876,737	2,809,820	3,066,917
	1986	5,904,670	2,825,604	3,079,066
	1987	5,932,611	2,841,389	3,091,222
	1988	5,960,548	2,857,176	3,103,372
	1989	5,988,490	2,872,961	3,115,529
	1990	6,016,425	2,888,745	3,127,680
	1991	6,038,684	2,898,274	3,140,410
	1992	6,060,943	2,907,757	3,153,186
	1993	6,083,200	2,917,315	3,165,885

APPENDICES

1. RECORD NUMBER

1A CERTIFICATE NUMBER
(DPH USE ONLY)

2 FACILITY NUMBER

1
OCCURRENCE

22A. SOCIAL SECURITY CARD

☐ YES

INITIALS

22B. RESIDENT COPY

☐ YES

INITIALS

MOTHER

FATHER

29 PRIOR LIVE BIRTHS A NOW LIVING

#

☐ NONE

B BORN LIVE-NOW DEAD

#

☐ NONE

C DATE OF LAST LIVE BIRTH

(Month, Day, Year)

30 TERMINATIONS

#

☐ NONE

DATE LAST TERMINATION

(Month, Day, Year)

31A. DATE LAST MENSES BEGAN

(Month, Day, Year)

31B. CLINICAL EST
GEST

WEEKS

32 MONTH OF PREG. PRENATAL
CARE BEGAN (First, Second, etc.)33 TOTAL NUMBER
OF PREGNANCIES34 WEIGHT GAINED
DURING PREG☐ NONE

LBS

35A. TYPE OF PRACTITIONER PROVIDING PRENATAL CARE.

☐ MD/DO ☐ PA ☐ NP ☐ CNM ☐ OTHER RN
☐ MIDWIFE ☐ OTHER (Specify)

35B. SITE OF PRENATAL CARE

☐ PRIVATE ☐ HOSP CLINIC ☐ HMO ☐ CHC
☐ Other (Specify)

35C. PRENATAL CARE METHOD OF PAYMENT

☐ BLUE CROSS ☐ COMM.INS. ☐ HMO ☐ MEDICAID ☐ MEDICARE ☐ HEALTHY START
☐ OTHER GOVT ☐ WORK COMP ☐ SELF-PAY ☐ FREE CARE ☐ OTHER (Spec)

36A. ALCOHOL

36B. TOBACCO

36C. MEDICAL RISK FACTORS (Separate by commas—Include up to 8 items)

37 METHOD OF DELIVERY

☐ VAGINAL ☐ VAGINAL AFTER
PRIOR C-SECTION ☐ PRIMARY
C-SECTION ☐ REPEAT
C-SECTION ☐ FORCEPS ☐ VACUUM38 COMPLICATIONS OF LABOR (Separate by commas—Include up to 10 items)
AND DELIVERY

39 OBSTETRIC PROCEDURES (Separate by commas—Include up to 10 items)

40 BIRTHWEIGHT

LBS

OZ

OR GRAMS

41 APGAR SCORE (0-10)

A 1 Minute

B 5 Minute

42 DELIVERY PAYMENT

☐ BLUE CROSS ☐ COMM ☐ HMO ☐ MEDICAID ☐ MEDICARE ☐ HEALTHY ST
☐ OTHER GOVT ☐ WORK COMP ☐ SELF-PAY ☐ FREE CARE ☐ OTHER (Spec)

43 MARRIED?

☐ YES ☐ NO

44 CONGENITAL ANOMALIES (Include up to 5 items)

45 ABNORMAL CONDITIONS OF NEWBORN (Include up to 5 items)

46 CHILD IS

☐ LIVING ☐ DEAD

47 BREASTFEEDING?

☐ YES ☐ NO

48 MOTHER TRANSFERRED PRIOR TO DELIVERY?

☐ NO ☐ YES FROM

49 INFANT TRANSFERRED?

☐ NO ☐ YES TO

50a. MOTHER'S SOCIAL SECURITY NUMBER

50b. FATHER'S SOCIAL SECURITY NUMBER

(INSTRUCTIONS ON REVERSE SIDE)

FOR USE BY
PHYSICIANS AND
MEDICAL EXAMINERS



The Commonwealth of Massachusetts

STANDARD CERTIFICATE OF DEATH
REGISTRY OF VITAL RECORDS AND STATISTICS

REGISTERED NUMBER

STATE USE ONLY

STATE USE ONLY
4a PLACE
4c HOSP
5 TYPE
7 VET
8 HISP RACE
9 EDUC
10 AGE
11 NATIVITY
12 MARITAL
15 RESID
15 OUT-STATE
23 OISP
31-32 AUTOP
33 MED EXAM
34 MANNER
35C WORK INJ
35F PLACE
36-37 CERT
40A RN PRO

DECEDENT

INFORMANT

DISPOSITION

CERTIFIER

DECEDENT - NAME FIRST MIDDLE LAST		SEX	DATE OF DEATH (Mo., Day, Yr.)		
PLACE OF DEATH (City/Town)		COUNTY OF DEATH	HOSPITAL OR OTHER INSTITUTION - Name (If not in either, give street and number)		
4a		4b	4c		
PLACE OF DEATH (Check only one)		SOCIAL SECURITY NUMBER		IF US WAR VETERAN SPECIFY WAR	
<input type="checkbox"/> HOSPITAL <input type="checkbox"/> Inpatient <input type="checkbox"/> ER/Outpatient <input type="checkbox"/> DOA <input type="checkbox"/> OTHER <input type="checkbox"/> Nursing Home <input type="checkbox"/> Residence <input type="checkbox"/> Other (Specify)		6		7	
5 WAS DECEDENT OF HISPANIC ORIGIN? (If yes, Specify Puerto Rican, Dominican, Cuban, etc.) <input type="checkbox"/> NO <input type="checkbox"/> YES		8a Specify		8b RACE (e.g. White, Black, American Indian, etc.) (Specify)	
9		DECEDENT'S EDUCATION (Highest Grade Completed) Elem/Sec (0-12) College (1-4, 5+)			
AGE - Last Birthda (Yrs.)		UNDER 1 YEAR MOS : DAYS		UNDER 1 DAY HOURS : MINS	
10a		10b		10c	
10d		11		BIRTHPLACE (City and State or Foreign Country)	
MARRIED, NEVER MARRIED WIDOWED OR DIVORCED		12		13	
14		14a		14b	
RESIDENCE - NO., ST., CITY/TOWN, COUNTY, STATE/COUNTRY		15a		15b	
FATHER - FULL NAME		STATE OF BIRTH (If not in US, name country)		MOTHER - NAME (GIVEN) (MAIDEN)	
16		17		18	
19		20		21	
INFORMANT'S NAME		MAILING ADDRESS - NO. & ST., CITY/TOWN, STATE, ZIP CODE		RELATIONSHIP	
22		23		24	
METHOD OF DISPOSITION <input type="checkbox"/> BURIAL <input type="checkbox"/> CREMATION <input type="checkbox"/> ENTOMBMENT <input type="checkbox"/> REMOVAL FROM STATE <input type="checkbox"/> DONATION <input type="checkbox"/> OTH SPEC		25		26	
27		28a/b		29	
DATE OF DISPOSITION (Mo., Day, Yr.)		NAME AND ADDRESS OF FACILITY		26b	
29		30		31	
PART I - Enter the diseases, injuries, or complications that caused the death. Do not use only the mode of dying, such as cardiac or respiratory arrest, shock or heart failure. List only one cause on each line (a through d). PRINT OR TYPE LEGIBLY.		32		33	
IMMEDIATE CAUSE (Final disease or condition resulting in death)		a		b	
Sequentially list conditions, if any leading to immediate cause. Enter UNDERLYING CAUSE (disease or injury that initiated events resulting in death) LAST.		c		d	
34		35		36	
MANNER OF DEATH <input type="checkbox"/> NATURAL <input type="checkbox"/> HOMICIDE <input type="checkbox"/> SUICIDE <input type="checkbox"/> ACCIDENT <input type="checkbox"/> SUICIDE		37		38	
39		40		41	
DATE OF INJURY (Mo., Day, Yr.)		TIME OF INJURY		INJURY AT WORK (Yes or No)	
35a		35b		35c	
36		37		38	
39		40		41	
35d		35e		35f	
36a		36b		36c	
36d		36e		36f	
36g		36h		36i	
36j		36k		36l	
36m		36n		36o	
36p		36q		36r	
36s		36t		36u	
36v		36w		36x	
36y		36z		36aa	
36ab		36ac		36ad	
36ae		36af		36ag	
36ah		36ai		36aj	
36ak		36al		36am	
36an		36ao		36ap	
36aq		36ar		36as	
36at		36au		36av	
36aw		36ax		36ay	
36az		36ba		36bb	
36bc		36bd		36be	
36bf		36bg		36bh	
36bi		36bj		36bk	
36bl		36bm		36bn	
36bo		36bp		36bq	
36br		36bs		36bt	
36bu		36bv		36bw	
36bx		36by		36bz	
36ca		36cb		36cc	
36cd		36ce		36cf	
36cg		36ch		36ci	
36cj		36ck		36cl	
36cm		36cn		36co	
36cp		36cq		36cr	
36cs		36ct		36cu	
36cv		36cw		36cx	
36cy		36cz		36da	
36db		36dc		36dd	
36de		36df		36dg	
36dh		36di		36dj	
36dk		36dl		36dm	
36dn		36do		36dp	
36dq		36dr		36ds	
36dt		36du		36dv	
36dw		36dx		36dy	
36dz		36ea		36eb	
36ec		36ed		36ee	
36ef		36eg		36eh	
36ei		36ej		36ek	
36el		36em		36en	
36eo		36ep		36eq	
36er		36es		36et	
36eu		36ev		36ew	
36ex		36ey		36ez	
36fa		36fb		36fc	
36fd		36fe		36ff	
36fg		36fh		36fi	
36fj		36fk		36fl	
36fm		36fn		36fo	
36fp		36fq		36fr	
36fs		36ft		36fu	
36fv		36fw		36fx	
36fy		36fz		36ga	
36gb		36gc		36gd	
36ge		36gf		36gg	
36gh		36gi		36gj	
36gk		36gl		36gm	
36gn		36go		36gp	
36gq		36gr		36gs	
36gt		36gu		36gv	
36gw		36gx		36gy	
36gz		36ha		36hb	
36hc		36hd		36he	
36hf		36hg		36hh	
36hi		36hj		36hk	
36hl		36hm		36hn	
36ho		36hp		36hq	
36hr		36hs		36ht	
36hu		36hv		36hw	
36hx		36hy		36hz	
36ia		36ib		36ic	
36id		36ie		36if	
36ig		36ih		36ii	
36ij		36ik		36il	
36im		36in		36io	
36ip		36iq		36ir	
36is		36it		36iu	
36iv		36iw		36ix	
36iy		36iz		36ja	
36jb		36jc		36jd	
36je		36jf		36jg	
36jh		36ji		36jj	
36jk		36jl		36jm	
36jn		36jo		36jp	
36jq		36jr		36js	
36jt		36ju		36jv	
36jw		36jx		36jy	
36jz		36ka		36kb	
36kc		36kd		36ke	
36kf		36kg		36kh	
36ki		36kj		36kk	
36kl		36km		36kn	
36ko		36kp		36kq	
36kr		36ks		36kt	
36ku		36kv		36kw	
36kx		36ky		36kz	
36la		36lb		36lc	
36ld		36le		36lf	
36lg		36lh		36li	
36lj		36lk		36ll	
36lm		36ln		36lo	
36lp		36lq		36lr	
36ls		36lt		36lu	
36lv		36lw		36lx	
36ly		36lz		36ma	
36mb		36mc		36md	
36me		36mf		36mg	
36mh		36mi		36mj	
36mk		36ml		36mn	
36mo		36mp		36mq	
36mr		36ms		36mt	
36mu		36mv		36mw	
36mx		36my		36mz	
36na		36nb		36nc	
36nd		36ne		36nf	
36ng		36nh		36ni	
36nj		36nk		36nl	
36nm		36no		36np	
36nq		36nr		36ns	
36nt		36nu		36nv	
36nw		36nx		36ny	
36nz		36oa		36ob	
36oc		36od		36oe	
36of		36og		36oh	
36oi		36oj		36ok	
36ol		36om		36on	
36oo		36op		36oq	
36or		36os		36ot	
36ou		36ov		36ow	
36ox		36oy		36oz	
36pa		36pb		36pc	
36pd		36pe		36pf	
36pg		36ph		36pi	
36pj		36pk		36pl	
36pm		36pn		36po	
36pp		36pq		36pr	
36ps		36pt		36pu	
36pv		36pw		36px	
36py		36pz		36qa	
36qb		36qc		36qd	
36qe		36qf		36qg	
36qh		36qi		36qj	
36qk		36ql		36qm	
36qn		36qo		36qp	
36qq		36qr		36qs	
36qt		36qu		36qv	
36qw		36qx		36qy	
36qz		36ra		36rb	
36rc		36rd		36re	
36rf		36rg		36rh	
36ri		36rj		36rk	
36rl		36rm		36rn	
36ro		36rp		36rq	
36rr		36rs		36rt	
36ru		36rv		36rw	
36rx		36ry		36rz	
36sa		36sb		36sc	
36sd		36se		36sf	
36sg		36sh		36si	
36sj		36sk		36sl	
36sm		36sn		36so	
36sp		36sq		36sr	
36ss		36st		36su	
36sv		36sw		36sx	
36sy		36sz		36ta	
36tb		36tc		36td	
36te		36tf		36tg	
36th		36ti		36tj	
36tk		36tl		36tm	
36tn		36to		36tp	
36tq		36tr		36ts	
36tu		36tv		36tw	
36tx		36ty		36tz	
36ua		36ub		36uc	
36ud		36ue		36uf	
36ug		36uh		36ui	
36uj		36uk		36ul	
36um		36un		36uo	
36up		36uq		36ur	
36us		36ut		36uu	
36uv		36uw		36ux	
36uy		36uz		36va	
36vb		36vc		36vd	
36ve		36vf		36vg	
36vh		36vi		36vj	
36vk		36vl		36vm	
36vn		36vo		36vp	
36vq		36vr		36vs	
36vt		36vu		36vv	
36vw		36vx		36vy	
36vz		36wa		36wb	
36wc		36wd		36we	
36wf		36wg		36wh	
36wi		36wj		36wk	
36wl		36wm		36wn	
36wo		36wp		36wq	
36wr		36ws		36wt	
36wu		36wv		36ww	
36wx		36wy		36wz	
36xa		36xb		36xc	
36xd		36xe		36xf	
36xg		36xh		36xi	
36xj		36xk		36xl	
36xm		36xn		36xo	
36xp		36xq		36xr	
36xs		36xt		36xu	
36xv		36xw		36xx	
36xy		36xz		36ya	
36yb		36yc		36yd	
36ye		36yf		36yg	
36yh		36yi		36yj	
36yk		36yl		36ym	
36yn		36yo		36yp	
36yq		36yr		36ys	
36yt		36yu		36yv	
36yw		36yx		36yy	
36yz		36za		36zb	
36					

DEPARTMENT OF PUBLIC HEALTH
REGISTRY OF VITAL RECORDS AND STATISTICS

REPORT OF FETAL DEATH

STATE FILE NUMBER

1a. HOSPITAL—NAME (If not in hospital, give street and number)				1b. CITY, TOWN OR LOCATION OF DELIVERY		1c. COUNTY OF DELIVERY	
2a. DATE OF DELIVERY (Month, Day, Year)		2b. HOUR OF DELIVERY		3. SEX OF FETUS		4. WEIGHT OF FETUS	
5a. MOTHER—MAIDEN NAME FIRST MIDDLE LAST				5b. AGE (at time of this delivery)		6a. RESIDENCE—STATE	
5c. CITY, TOWN OR LOCATION				5d. STREET AND NUMBER		6b. COUNTY	
6c. RACE—(e.g., White, Black, American Indian, etc.) (Specify)				7. EDUCATION (Specify only highest grade completed): (Elementary or Secondary (10-12) College (11, 12 or 13+))		8. DATE LAST NORMAL MENSTRUATION BEGAN (Month, Day, Year)	
9. IS MOTHER MARRIED? (Specify yes or no)				10. MONTH OF PREGNANCY PRENATAL CARE BEGAN (First, second, etc.) (Specify)		11. PRENATAL VISITS—Total number (If none so state)	
12a. FATHER—NAME FIRST MIDDLE LAST				12b. AGE (at time of this delivery)		12c. RACE—(e.g., White, Black, American Indian, etc.) (Specify)	
13a. THIS BIRTH—Single, twin, triplet, etc. (Specify)				13b. IF NOT SINGLE BIRTH—Born first, second, third, etc. (Specify)		13c. DATE OF LAST LIVE BIRTH (Month, Year)	
14a. EDUCATION (Specify only highest grade completed): (Elementary or Secondary (10-12) College (11, 12 or 13+))				14b. DATE OF LAST OTHER TERMINATION (as indicated in d or e above) (Month, Year)		14c. DATE OF LAST OTHER TERMINATION (as indicated in d or e above) (Month, Year)	
15. PART I 15a. Immediate cause (ENTER ONLY ONE CAUSE PER LINE FOR 15a, 15b, AND 15c) 15b. DUE TO, OR AS A CONSEQUENCE OF 15c. DUE TO, OR AS A CONSEQUENCE OF Specify Fetal or Maternal				16. OTHER SIGNIFICANT CONDITIONS OF FETUS OR MOTHER (Conditions contributing to fetal death but not related to cause given in 15a)			
17. FETUS DIED BEFORE LABOR DURING LABOR OR DELIVERY UNKNOWN (Specify)				18. PHYSICIAN'S ESTIMATE OF GESTATION (Specify weeks)			
19. AUTOPSY (Specify yes or no)				20. COMPLICATIONS OF PREGNANCY (Describe or write "none")			
21. COMPLICATIONS OF LABOR AND/OR DELIVERY (Describe or write "none")				22. CONGENITAL MALFORMATIONS OR ANOMALIES OF FETUS (Describe or write "none")			
23. NAME OF PHYSICIAN OR ATTENDANT (Type or print)				24. NAME OF PERSON COMPLETING REPORT (Type or print)			
25. TITLE				26. NAME OF FUNERAL DIRECTOR (IF ANY)			
27. NAME OF FACILITY (Hospital or Funeral Home)				28a. ADDRESS OF FACILITY			
28b. CITY OR TOWN				28c. STATE			
I HEREBY CERTIFY that this delivery occurred on the date stated and product of conception was not a live birth.							
Signature of Attending Physician or Medical Examiner							
TITLE							

DEFINITION:

"Fetal death" per chapter 111 section 202 of the M.G.L. means death prior to the complete expulsion or extraction from its mother of a fetus, irrespective of the duration of pregnancy, as indicated by the fact that after such expulsion or extraction the fetus does not breathe or show any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. A fetal death does NOT include an induced abortion as defined in section 12K of chapter 112 of M.G.L. Spontaneous abortions are to be included.

TO BE REPORTED:

Only fetal deaths of twenty weeks or more gestation or of a weight of 350 grams or more are to be reported.

INSTRUCTIONS:

Return completed reported within 10 days to the Registry of Vital Records and Statistics, Rm.



The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC HEALTH
REGISTRY OF VITAL RECORDS AND STATISTICS

CERTIFICATE OF MARRIAGE

This certificate must be delivered to the person before whom the marriage is to be contracted before he proceeds to solemnize the same

(State file number)

(City or town making return)

Registered No. _____

Intention No. _____

1 Place of Marriage _____

City or Town _____

(Do not enter name of village or section of city or town)

2 Date of Marriage _____

(Month) (Day) (Year)

3 FULL NAME

GROOM

12 FULL NAME

BRIDE

3A SURNAME
AFTER MARRIAGE12A SURNAME
AFTER MARRIAGE

4 DATE OF BIRTH

5 OCCUPATION

13 DATE OF BIRTH

14 OCCUPATION

6 RESIDENCE
NO. & ST.
CITY/
TOWNWIDOWED
OR DIVORCED15 RESIDENCE
NO. & ST.
CITY/
TOWNZIP
CODE7 NUMBER OF
MARRIAGE
(1st, 2nd, 3rd, etc.)WIDOWED
OR DIVORCED16 NUMBER OF
MARRIAGE
(1st, 2nd, 3rd, etc.)WIDOWED
OR DIVORCED

9 BIRTHPLACE

(City or town)

(State or country)

18 BIRTHPLACE

(City or town)

(State or country)

10 MAIDEN NAME
OF MOTHER19 MAIDEN NAME
OF MOTHER11 NAME OF
FATHER20 NAME OF
FATHER

21 THE INTENTION OF MARRIAGE by the above-mentioned persons was duly entered by me in the records of the Community _____ according to law, this _____ day of _____ 19____

(Name of Community)

☐ COURT WAIVER Issued

(Month) (Day) (Year)

by

☐ AGE ORDER

(City or Town Clerk or Registrar)

22 I HEREBY CERTIFY that I joined the above-named persons in marriage at No _____

(If marriage was solemnized in a church, give its NAME instead of street and number)

(Name of city or town)

on

(Month)

(Day)

(Year)

Signature _____

Official station _____

(Minister of the Gospel, Clergyman, Priest, Rabbi, or Justice of the Peace)

(Print or type name)

Residence No. _____

St., City or Town of _____

23 Certificate recorded by city or town clerk _____

(Month)

(Day)

(Year)

CLERK OR REGISTRAR

THIS CERTIFICATE IS
NOT TO BE USED
OUTSIDE OF
MASSACHUSETTS.
NOT VALID AFTER:

THIS IS A PERMANENT RECORD.
Use only **durable black ink** or approved
black typewriter ribbon. Every item of
information should be carefully supplied.
ALTERATIONS AND ERASURES IN
THIS CERTIFICATE ARE FORBID-
DEN; PENALTY FOR VIOLATION,
ONE HUNDRED DOLLARS.

MGL CHAP. 207, §§ 28, 28A, 48, 49,
54, 57 and CHAP. 46, § 18.

☐ MEDICAL
CERTIFICATES
ON FILE

☐ COMMISSION
ON FILE

The Commonwealth of Massachusetts
 DEPARTMENT OF PUBLIC HEALTH
 REGISTRY OF VITAL RECORDS AND STATISTICS
 CERTIFICATE OF ABSOLUTE
 DIVORCE OR ANNULMENT
 (Chap. 208, Sec. 46 G.L.)
 R-408

HUSBAND	HUSBAND - NAME				FIRST	MIDDLE	LAST	
	USUAL RESIDENCE STREET ADDRESS					CITY TOWN OR LOCATION		
	2a COUNTY		2b STATE		2c DATE OF BIRTH (Mo Day Yr)		2d NUMBER OF THIS MARRIAGE (1st, 2nd, Specify)	
	5a WIFE NAME					FIRST	MIDDLE	LAST
WIFE	5b USUAL RESIDENCE STREET ADDRESS					5c CITY TOWN OR LOCATION		
	6a COUNTY		6b STATE		6c DATE OF BIRTH (Mo Day Yr)		6d NUMBER OF THIS MARRIAGE (1st, 2nd, Specify)	
	9 DATE OF THIS MARRIAGE (Mo Day Yr)					10a NUMBER OF CHILDREN BORN ALIVE OF THIS MARRIAGE		10b NUMBER OF CHILDREN UNDER AGE 18 IN THIS FAMILY

FOR COURT USE ONLY			
11 COUNTY OF JUDGMENT		12 TITLE OF COURT	
13 DATE OF JUDGMENT NISI (Mo Day Yr)		14 TYPE OF JUDGMENT DIVORCE OR ANNULMENT (Specify)	
15 DOCKET NUMBER		16 NAME OF PLAINTIFF	
17 SIGNATURE OF CERTIFYING OFFICIAL		18 CAUSE FOR WHICH GRANTED	
18a		18b	

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ASSISTANT REGISTRAR
Frances A. Vitagliano

ASSISTANT REGISTRAR FOR STATISTICS
Phyllis J. Zeuli

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MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH
BUREAU OF HEALTH STATISTICS, RESEARCH AND EVALUATION
REGISTRY OF VITAL RECORDS AND STATISTICS
470 ATLANTIC AVENUE, SECOND FLOOR
BOSTON, MASSACHUSETTS 02210-2224